



City Council Staff Report

Date: July 19, 2017

LEGISLATIVE

Subject: INTRODUCTION OF AN ORDINANCE OF THE CITY OF PALM SPRINGS, CALIFORNIA, ADDING SUBSECTION (k) TO SECTION 11.74.043 AND SECTION 5.78.050, AND AMENDING SECTION 5.78.010 OF THE PALM SPRINGS MUNICIPAL CODE, REGARDING LOUD, UNUSUAL NOISES AND LANDSCAPE RELATED BUSINESSES, PROHIBITING GASOLINE POWERED LEAF BLOWERS AND ALTERNATIVELY ALSO PROHIBITING ELECTRICAL OR BATTERY POWERED LEAF BLOWERS IN THE CITY AS A PER SE NUISANCE COMMENCING ON JANUARY 1, 2019

From: David H. Ready, City Manager

Initiated by: Edward Z. Kotkin, City Attorney
Marcus L. Fuller, Assistant City Manager

SUMMARY

On June 23, 2016, at a joint meeting of the City Council and Sustainability Commission, the City Council received a presentation on development of regulations limiting the use of leaf blowers throughout the City, and directed the Sustainability Commission to conduct studies and develop options for the reductions and/or elimination of gas powered leaf blowers.

Subsequently, following Council's direction, at its meeting of December 20, 2016, the Sustainability Commission unanimously approved a recommendation that the City Council phase out gas powered leaf blowers and eliminate them in all areas/zoning of the City by December 31, 2018. The Sustainability Commission also recommended a program to test battery powered blowers and other maintenance equipment by City employees and contractors, and that the City provide an exchange program for gardener/landscaper-owned gas powered leaf blowers.

At its meeting of May 17, 2017, the City Council considered an Ordinance to amend the Palm Springs Municipal Code to prohibit the use of gasoline-powered leaf blowers with an effective date of January 1, 2019. At that time, the Council directed staff to review and return for consideration an Ordinance prohibiting the use of both gasoline-powered and electrical/battery-powered leaf blowers within the City.

This item has returned to Council upon its direction and will allow Council to consider adopting an Ordinance to regulate the operation of leaf blowers (either gasoline-powered, or both gasoline-powered and electrical/battery-powered).

RECOMMENDATION:

If the Council desires to adopt regulations limiting the use of gasoline-powered leaf blowers only, staff recommends the following action:

Waive the reading of text in its entirety, read by title only, and introduce for first reading Ordinance No. _____, "AN ORDINANCE OF THE CITY OF PALM SPRINGS, CALIFORNIA, ADDING SUBSECTION (k) TO SECTION 11.74.043 AND SECTION 5.78.050, AND AMENDING SECTION 5.78.010 OF THE PALM SPRINGS MUNICIPAL CODE, REGARDING LOUD, UNUSUAL NOISES AND LANDSCAPE RELATED BUSINESSES, PROHIBITING GASOLINE POWERED LEAF BLOWERS IN THE CITY AS A PER SE NUISANCE COMMENCING ON JANUARY 1, 2019, AND PROVIDING FOR REGULATION OF ELECTRICAL OR BATTERY POWERED LEAF BLOWERS."

Or,

If the Council desires to adopt regulations limiting the use of both gasoline-powered leaf blowers and electrical/battery-powered leaf blowers, staff recommends the following action:

Waive the reading of text in its entirety, read by title only, and introduce for first reading Ordinance No. _____, "AN ORDINANCE OF THE CITY OF PALM SPRINGS, CALIFORNIA, ADDING SUBSECTION (k) TO SECTION 11.74.043 AND SECTION 5.78.050, AND AMENDING SECTION 5.78.010 OF THE PALM SPRINGS MUNICIPAL CODE, REGARDING LOUD, UNUSUAL NOISES AND LANDSCAPE RELATED BUSINESSES, PROHIBITING GASOLINE POWERED AND ELECTRICAL/BATTERY-POWERED LEAF BLOWERS IN THE CITY AS A PER SE NUISANCE COMMENCING ON JANUARY 1, 2019, AND PROVIDING FOR REGULATION OF ELECTRICAL OR BATTERY POWERED LEAF BLOWERS."

Or, provide alternative direction to staff.

BACKGROUND:

At the June 23, 2016, joint meeting of the City Council and Sustainability Commission, the City Council received a presentation on development of regulations limiting the use of leaf blowers throughout the City. A copy of the June 23, 2016, staff report is included as **Attachment 1**. At that time, the City Council directed staff and the Sustainability Commission to continue to conduct studies and develop options for the reductions and/or elimination of gas powered leaf blowers including grant or incentive options, educational component, health protections for workers, and potential phased-in regulations.

At its July 19, 2016, meeting, the Sustainability Commission appointed an Ad-Hoc Subcommittee to review, research and develop recommendations for limiting the use of leaf blowers within the City. The Ad-Hoc Subcommittee reviewed data from the prior work of the Sustainability Commission in 2012/2013 and 2015/2016 regarding leaf blower regulations, researched other City regulations, reviewed the ONE-PS Ecology Committee meeting minutes on the issue, leaf blower manufacturer noise and emission specifications, and South Coast Air Quality Management District ("AQMD") information related to leaf blowers.

On October 24, 2016, the Sustainability Commission conducted a public workshop at the City Council Chambers of City Hall; public notices and invitations were sent to all applicable licensed gardening/landscaping business owners and community organizations. On-line notices of the public workshop were sent through the City's website, distributed via ONE-PS, Nextdoor, Facebook, and other social media outlets. Sustainability Commission Chair also wrote an article published in the *Desert Sun* on October 20, 2016, inviting the public to participate at the workshop held on October 24, 2016; a copy of the article is included as **Attachment 2**.

At the October 24, 2016, workshop, 28 people attended and 13 speakers commented on the item. City staff provided a Spanish-speaking employee for translation purposes.

The Sustainability Commission considered the Ad-Hoc Subcommittee's recommendations at its November 15, 2016, meeting. At its December 20, 2016, meeting, the Sustainability Commission unanimously approved the Ad-Hoc Subcommittee's recommendations, which generally include the following:

- Phase out gas powered leaf blowers and eliminate their use and operation in all areas/zoning within the City by December 31, 2018
- Implement a testing program of battery powered leaf blowers and other maintenance equipment on City property by City employees and contractors during the phase-out period
- Develop an exchange program of gas-powered leaf blowers for battery-powered leaf blowers, with priority on less efficient / higher polluting 2-stroke gasoline-powered leaf blower engines
- Implement requirements for all employees of gardening/landscaping business to be trained on the proper use of leaf blowers

The Ad-Hoc Subcommittee's recommendation, supported by the Sustainability Commission and recommended to the City Council, rejected possible restrictions on leaf blowers by noise/decibel level, or by hours or days of the week, or by zoning.

A copy of the Sustainability Commission Ad-Hoc Subcommittee's report is included as **Attachment 3**.

At the direction of the California Legislature, in 2000 the California Air Resources Board (“CARB”) published a comprehensive report on the potential health and environmental impacts of leaf blowers, (the “2000 CARB report”); a copy of the report is included as **Attachment 4**.

Noise

The City of Palm Springs 2007 General Plan includes Chapter 8 – Noise Element, which outlines a set of noise control policies, programs, and implementation measures for solving noise-related issues and problems. According to the General Plan, the City uses the “Community Noise Equivalent Level (CNEL)” factor which is defined as: *the average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.* CNEL and Ldn are the metrics used in (the General Plan) to describe annoyance due to noise and to establish land use planning criteria for noise. Figure 8-1 from the General Plan depicts the typical sources of sound and how they vary in intensity, as shown here:

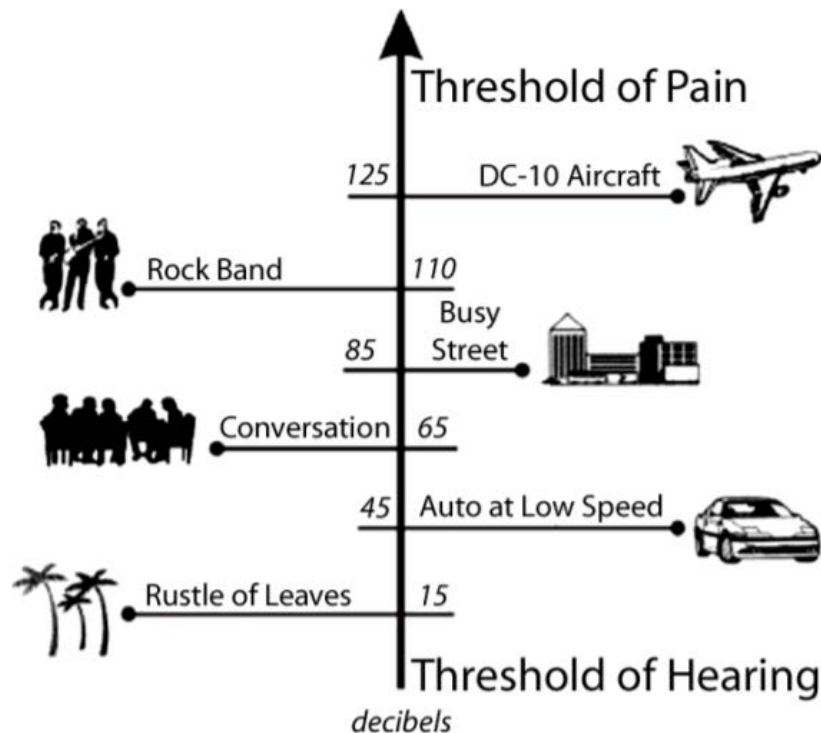
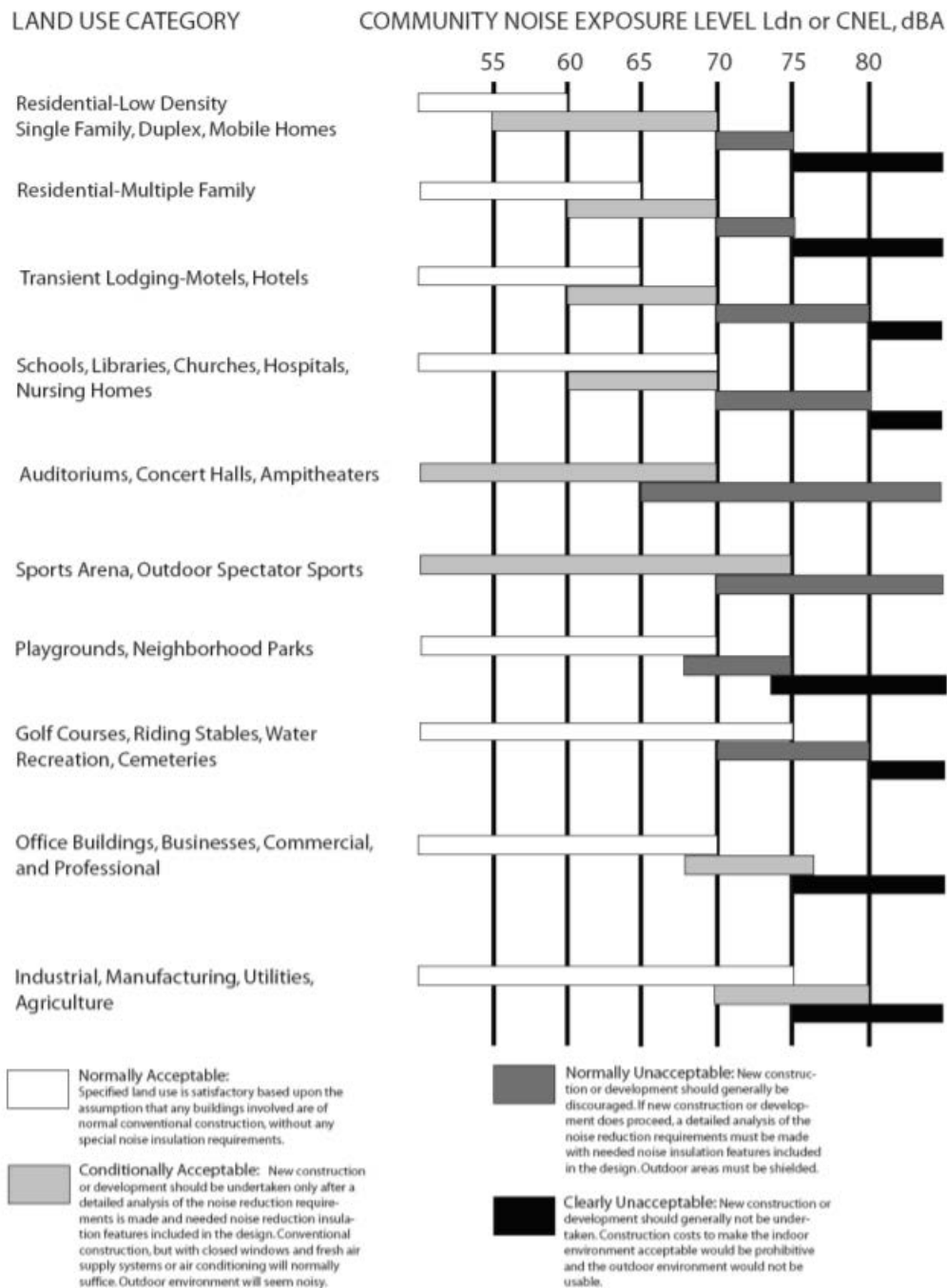


Figure 8-1 Sources of Sound

Figure 8-2 from the General Plan also depicts the range of CNEL based on land use category, as shown here:



Source: California Office of Noise Control (as adopted from Wiley Labs for the Environmental Protection Agency, 1976).

As shown in Figure 8-2 of the General Plan, depending upon the type of land use, generally 55-70 decibels determines the point at which noise levels are acceptable or unacceptable.

Action NS 3.5 from the Noise Element of the City’s General Plan provides guidance on regulating noises generated by leaf blowers, and states:

NS3.5 Incorporate provisions into the City Noise Ordinance to regulate noise impacts of domestic portable power equipment, such as power tools, lawn mowers, and leaf blowers.

Chapter 11.74 of the Palm Springs Municipal Code is identified as the “Noise Ordinance” and establishes allowable noise levels by time of day and by zoning districts throughout the City, as shown in Table 1.

Zone	Time	Sound Level (A-weighted) Decibels
Residential	7 a.m. to 6 p.m.	50
Low Density	6 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
Residential	7 a.m. to 6 p.m.	60
High Density	6 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 6 p.m.	60
	6 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Industrial	7 a.m. to 6 p.m.	70
	6 p.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55

Table 1- Noise Ordinance

Section 11.74.032 “Time Duration Correction Table” provides allowances for increased noise levels or short durations during daytime hours, as shown in Table 2.

Duration of Sound	dB(A) Allowance
Up to 30 minutes per hour	+3
Up to 15 minutes per hour	+6
*Up to 10 minutes per hour	+8
Up to 5 minutes per hour	+11
Up to 2 minutes per hour	+15
Up to 1 minute per hour	+18
Up to 30 seconds per hour	+21
Up to 15 seconds per hour	+24

Table 2- Time Duration Correction Table

*An assumption is being made in this staff report that leaf blower operations during routine landscape maintenance might occur within 10 minutes of each hour of gardening. Therefore, the maximum noise levels applicable during daytime hours (7 AM to 6 PM) applicable to leaf blower operations may be adjusted as shown in the following Table 3.

Zone	Sound Level (A-weighted) Decibels
Low Density Residential	58
High Density Residential	68
Commercial	68
Industrial	78

Table 3- Adjusted Maximum Noise Levels

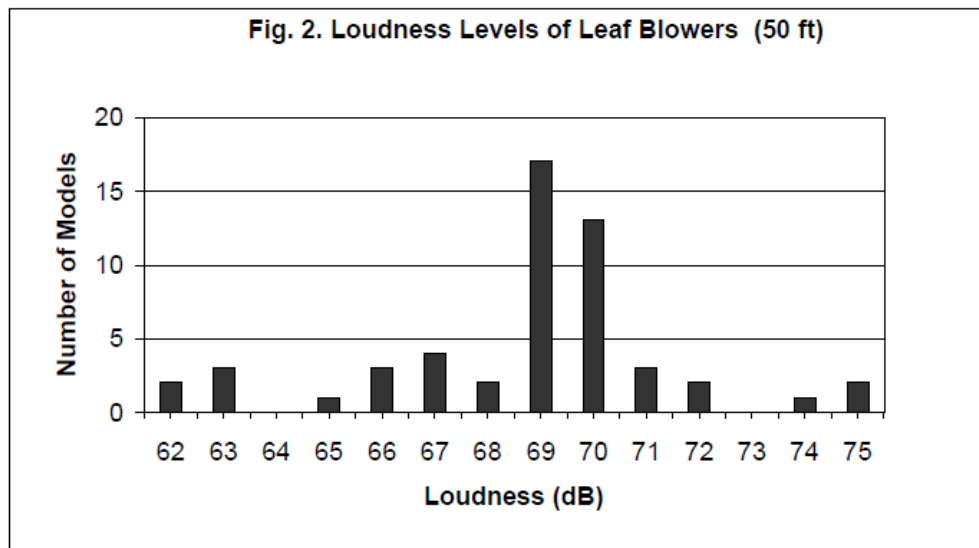
Section 11.74.041 further defines “controlled hours of operation,” and restricts the use of certain noise producing equipment or activities between the hours of 8:00 PM and 8:00 AM in residential zones, and 8:00 PM and 7:00 AM in all other zones (excepting operation by the City or its officers, employees, or agents). Specifically, the City’s regulation states:

- (a) *It shall be unlawful for any person to operate, permit, use or cause to operate, any of the following between the hours of eight p.m. to eight a.m. in residential zones and between the hours of eight p.m. to seven a.m. in all other zones:*
 - (1) *Powered model vehicles;*
 - (2) *Loading and unloading vehicles such as trash collectors, fork lifts, or cranes within one thousand feet of a residence;*
 - (3) *Domestic power tools;*
 - (4) **Non-emergency exterior hardscape and landscape activities, including without limitation** *tree trimming, re-seeding, lawn mowing, **leaf blowing**, dust and debris clearing, and any other landscaping or nonemergency exterior hardscape maintenance activities which would utilize any motorized saw, sander, drill, grinder, leaf-blower, lawn mower, hedge trimmer, edger, or any other similar tool or device.*
- (b) *Notwithstanding the foregoing, this Section shall not prohibit the operation or use of any such equipment at any time within said zones by the city, its officers or employees, or any agent or franchisee of the city.*
- (c) *The regular mowing or grooming of golf courses, grass tennis courts, grass croquet courts, and lawn bowling areas shall be exempt from the restrictions set forth in this Section. The allowed work hours for mowing or green preparation for golf courses, grass tennis courts, grass croquet courts, and lawn bowling areas shall be between five-thirty a.m. and eight p.m., seven days per week and during all seasons of the year.*

Therefore, the City’s current regulations allow for the use of leaf blowers throughout the City every day of the week, between 7:00 AM and 8:00 PM in commercial/industrial zones, and between 8:00 AM and 8:00 PM in residential zones.

As reported to the City Council at the study session held on June 23, 2016, leaf blowers can generate noise levels varying from 70 to 90 decibels. Depending on the distance from a dwelling area the noise level may be considered a disturbance. The U.S. Department of Labor Occupational Safety & Health Administration (“OSHA”) requires a hearing protection program for employees when sound exposures equal or exceed an eight-hour, time-weighted average sound level of 85 decibels.

According to the 2000 CARB report, noise levels from backpack and hand-held leaf blowers (measured at 50 feet from the blower) varied from 62 to 75 decibels (dBA), with more than half registering 69-70 dBA. As emphasized in the 2000 CARB report: *Bearing in mind the logarithmic decibel scale, the difference in a leaf blower at 62 dBA and one at 75 dBA, a 13 dBA range, represents more than a quadrupling of the sound pressure level, and would be perceived by a listener as two to three times as loud. The rule of thumb is that when a sound level increases by ten dB, the subjective perception is that loudness has doubled.* Included in the 2000 CARB report, is the following Figure 2:



As the maximum noise level permitted by the City’s Noise Ordinance is 50 dB (adjusted to 58 dB for up to 10 minutes of leaf blower operation) for low-density residential and 60 dB (adjusted to 68 dB for up to 10 minutes of leaf blower operation) for high-density residential or commercial zones, operating the leaf blowers reviewed in the 2000 CARB report would violate the City’s Noise Ordinance.

Staff has completed a general comparison of leaf blowers commercially sold by a national hardware chain and the noise generated by each, as shown in the following Table 4:

Model Number	Type	Size	Noise Level	Meets Code?
PB580T	Back Pack / Gas	215 MPH, 510 CFM	70.0 dB	Yes/No ¹
PB7704	Back Pack / Gas	234 MPH, 756 CFM	70.0 dB	Yes/No ¹
RYO8420A	Back Pack / Gas	185 MPH, 510 CFM	73.4 dB	Yes/No ¹
PB755ST	Back Pack / Gas	233 MPH, 651 CFM	74.0 dB	Yes/No ¹
BHX2500CA	Hand Held / Gas	145 MPH, 356 CFM	67.0 dB	Yes/No ²
LB1M16	Hand Held / Gas	155 MPH, 1250 CFM	77.0 dB	No
S1988	Hand Held / Gas	150 MPH, 460 CFM	77.1 dB	No
WG509	Electric	210 MPH, 350 CFM	50.0 dB	Yes
GW24072	Electric	235 MPH, 380 CFM	60.0 dB	Yes/No ²
51585 (#4)	Electric	160 MPH, 155 CFM ³	63.5 dB	Yes/No ²
LB6004	Electric	145 MPH, 600 CFM	64.0 dB	Yes/No ²
LB5302 (#1)	Electric	110 MPH, 530 CFM ⁴	64.0 dB	Yes/No ²
UT42100B	Electric	150 MPH, 233 CFM	65.0 dB	Yes/No ²
LSWV36	Electric	120 MPH, 90 CFM	65.0 dB	Yes/No ²
P2105 (#5)	Electric	120 MPH, 120 CFM ⁵	67.0 dB	Yes/No ²
51618 (#3)	Electric	225 MPH, 330 CFM ⁶	67.0 dB	Yes/No ²
51619 (#2)	Electric	250 MPH, 350 CFM ⁷	68.0 dB	Yes/No ²

Table 4 – Leaf Blower Noise Levels

Based on staff’s cursory review of the various models of leaf blowers commercially sold by Home Depot, very few leaf blowers operated with a noise level at or below 58 dB, the adjusted maximum noise level allowed in low density residential zones from 7AM to 6PM. If leaf blower operations is limited to 5 minutes per hour, the adjusted maximum noise level increases to 61 dB, and if leaf blower operations is limited to 2 minutes per hour, the adjusted maximum noise level increases to 65 dB, which would allow for use of many more electrical/battery-powered leaf blowers.

¹ Adjusted Maximum of 78 dB is allowed in Industrial Zones only from 7AM to 6PM; this product could be used in that Zone only

² Adjusted Maximum of 68 dB is allowed in High Density Residential Zones and Commercial Zones from 7AM to 6PM, and would also be allowed in Industrial Zones, but not Low Density Residential Zones which has adjusted maximum of 58 dB allowed.

³ This model is the fourth highest rated and popular blower sold at Home Depot.

⁴ This model is the highest rated and popular blower sold at Home Depot.

⁵ This model is the fifth highest rated and popular blower sold at Home Depot.

⁶ This model is the third highest rated and popular blower sold at Home Depot.

⁷ This model is the second highest rated and popular blower sold at Home Depot.

Air Quality

The City of Palm Springs 2007 General Plan includes Chapter 7 – Air Quality Element, and notes that the preservation of the City’s air quality plays a significant role in the community’s health and overall quality of life. Further, the City’s General Plan notes that the essence of air pollution in a community reduces visibility, increases the occurrence of respiratory illness and disease, increases absences from work and school, and is detrimental to the natural environment. The Air Quality Element provides policy and action items to ensure that the City is striving, in collaboration with regional agencies, to implement measures to preserve and improve air quality in the Coachella Valley to the greatest extent possible.

Policy AQ 2.7 from the Air Quality Element of the City’s General Plan provides guidance on regulating air quality generated by leaf blowers, and states:

AQ2.7 Consider adding provisions to the City’s Municipal Code to phase out the use of gas-powered lawn mowers and replace them with electric mowers and to prohibit the use of leaf blowers.

The 2000 CARB report identified that gasoline-powered leaf blowers are most often powered by two-stroke engines of less than 25 horsepower (hp) which generate high exhaust emissions. According to the 2000 report, CARB estimated there were approximately 410,000 gasoline-powered leaf blowers in use, with only 5,000 (1.2%) using more efficient and environmentally friendly four-stroke engines; the 2000 report also disclosed that 60% of handheld leaf blowers sold were electric. Included in its 2000 report, CARB identified a statewide inventory of leaf blower exhaust emissions (tons per day) as shown in Table 2 from the CARB report.

Table 2. Statewide Inventory of Leaf Blower Exhaust Emissions (tons per day)

	Leaf blowers 2000	Leaf blowers 2010	All Lawn & Garden, 2000	All Small Off- Road, 2000
Hydrocarbons, reactive	7.1	4.2	50.24	80.07
Carbon Monoxide (CO)	16.6	9.8	434.99	1046.19
Fine Particulate Matter (PM10)	0.2	0.02	1.05	3.17

Thus, in the 2000 CARB report it was estimated that leaf blowers generated 7.1 tons per day of hydrocarbons, and 16.6 tons per day of Carbon Monoxide. However, these levels were anticipated to reduce by 2010 as a result of CARB’s adoption of new air quality standards for leaf blowers effective in 2000, as identified in Table 3 from the CARB report.

Table 3
Exhaust Emissions Per Engine for Leaf Blowers
(grams per brake-horsepower-hour, g/bhp-hr)

	Uncontrolled Emissions	1995-1999 Standards²	2000 and later Standards
HC+NO _x	283 + 1.0	180 + 4.0	54 ³
CO	908	600	400
PM	3.6	--- ⁴	1.5

At the time, the 2000 CARB report drew comparisons to the air quality impacts associated with leaf blowers to those associated with a new light duty (1999 model) and older light duty (1975 model) vehicle. As shown in the table on the following page, the 2000 CARB report demonstrated that exhaust emissions from leaf blowers were significantly more than those generated by “new light duty” vehicles. As emissions regulations on new vehicles have changed significantly since 2000, the difference in emissions generated from leaf blowers to emissions generated by 2017 or newer model year vehicles would likely be that much more increased.

	Exhaust Emissions, g/hr	Exhaust Emissions, new light duty vehicle,* g/hr	Exhaust Emissions, older light duty vehicle,** g/hr
Hydrocarbons	199.26	0.39	201.9
Carbon Monoxide	423.53	15.97	1310
Particulate Matter	6.43	0.13	0.78
Fugitive Dust	48.6-1031	N/A	N/A

*New light duty vehicle represents vehicles one year old, 1999 or 2000 model year, driven for one hour at 30 mph.

**Older light duty vehicle represents vehicles 1975 model year and older, pre-catalytic vehicle, driven for one hour at 30 mph.

The 2000 CARB report summarized this comparison of air quality emissions by stating that for the average 1999 leaf blower and new light duty vehicle, the hydrocarbon emissions from one-half hour of leaf blower operation equal about 7,700 miles of driving, at 30 miles per hour average speed. The comparison for carbon monoxide emissions was equivalent to driving 440 miles at 30 miles per hour average speed.

Although Table 3 from the 2000 CARB report estimated significant improvements with air quality emissions from gasoline-operated leaf blowers following implementation of CARB's air quality standards for new leaf blowers manufactured after 2000, current leaf blowers continue to generate air quality emissions that greatly exceed air quality emissions generated by modern vehicles. A study published by edmunds.com on December 5, 2011, drew comparisons with air quality emissions generated by modern vehicles: a 2011 Ford F-150 SVT Raptor and 2012 Fiat 500, and air quality emissions generated by two commercially available leaf blowers: two-stroke backpack gasoline-powered Echo PB-500T model and four-stroke handheld gasoline-powered Ryobi RYO9440 model.

As noted in the study: *Two-stroke engines have high power density, making them the engine of choice among commercial and prosumer-grade leaf blowers, but they emit more pollutants than four-strokes.*

The edmunds.com study summarized the comparison results, as shown in the following table:

	NMHC	NOx	CO
2011 Ford Raptor	0.005	0.005	0.276
2012 Fiat 500	0.016	0.010	0.192
Ryobi 4-stroke leaf blower	0.182	0.031	3.714
Echo 2-stroke leaf blower	1.495	0.010	6.445

NMHC = non-methane hydrocarbons, NOx = nitrogen oxides, CO = carbon monoxide

The study summarized these results by stating: *Distilling the above results, the four stroke Ryobi leaf blower kicked out 6.8 times more NOx, 13.5 times more CO and more than 36 times more NMHC than the Raptor. The two stroke leaf blower was worse still, generating 23 times the CO and nearly 300 times more NMHC than the crew cab pickup. Let's put that in perspective. To equal the hydrocarbon emissions of about a half hour of yard work with this two stroke leaf blower, you'd have to drive a Raptor for 3,887 miles, or the distance from Northern Texas to Anchorage, Alaska.*

A copy of the full report by edmunds.com is included as **Attachment 5**.

In addition to the air quality emissions associated with hydrocarbons, nitrogen oxides, and carbon monoxide, leaf blowers also contribute to fugitive dust emissions. As noted in the 2000 CARB report: *A leaf blower moves debris such as leaves by pushing relatively large volumes of air, typically between 300-700 cubic feet per minute, at a high wind speed, typically 150 to 280 miles per hour (hurricane wind speed is >117 mph). A typical surface is covered with a layer of dust that is spread, probably non-uniformly, along the surface being cleaned. While the intent of a leaf blower operator may not be to move dust, the high wind speed and volume result in small particles being blown into the air.*

The 2000 CARB report determined that fugitive dust impacts generated by leaf blowers represented a small, but probably significant amount (ranging from 1% to 5%) of fugitive dust emissions statewide.

Local Regulations Limiting Leaf Blower Operation

In response, partially, to the 2000 CARB report, various local agencies have adopted regulations that limit leaf blower operation, either by type, day or hour of operation, or a complete ban. The September 2010 Consumer Reports Magazine listed 55 local agencies in California (cities or counties) that had enacted some form of regulations, including 26 of which had banned all gasoline-powered leaf blowers. A copy of the listing from the September 2010 Consumer Reports Magazine is included as **Attachment 6**.

In reviewing restrictions on leaf blower operations adopted recently by local agencies, staff identified significant research performed by the Town of Los Gatos in 2013, leading to its adoption on June 2, 2014, of an ordinance prohibiting the use of gasoline-powered leaf blowers in all areas, and restrictions on electric-powered leaf blowers (limited to 65 decibels or lower). All of the reference information associated with the Town of Los Gatos' process to adopt its regulations are available online at:

<http://www.losgatosca.gov/2059/Leaf-Blower-Ordinance>

Of relevance here was the research performed by staff from the Town of Los Gatos summarized in their December 16, 2013, council agenda report, included as reference as **Attachment 7**.

Briefly, as summarized here, the Town of Los Gatos noted the following policy issues and code enforcement practices conducted by various cities that had enacted leaf blower regulations:

Los Altos (28,976 residents; 6.5 square miles)

Gas powered leaf blower ban since 1991, (electric allowed); complaint based enforcement is given lower priority call with the violation often no longer occurring by the time officer arrives; 348 complaints received in last year (October 2012 – October 2013); responses to complaints require significant time (10-15 hours/month), solutions involving prevention encouraged; “yellow card” warnings issued for first time offenders.

Palo Alto (66,642 residents; 25.8 square miles)

Gas powered leaf blower ban since 2005 (residential zones only), (electric allowed); complaint based enforcement handled by Police Department is given lower priority call with violation often no longer occurring by the time officer arrives; 15-30 complaints annually; warnings issued for first time offenders, second violation may result in \$100 administrative citation;

Beverly Hills (34,658 residents; 5.7 square miles)

Gas powered leaf blower ban since 1976, (electric allowed); complaint based enforcement, letters issued to property owners violating ordinance – no officer is dispatched, however, code enforcement officers follow up with property owner's gardener; 256 complaints in 2012, 291 complaints in 2013;

Santa Monica (92,742 residents; 8.4 square miles)

Gas and electric powered leaf blower ban since 1991; original enforcement provided by Police Department, which required Police Officer to witness the violation; in 2010, complaint based enforcement assigned to Office of Sustainability; in 2013, complaint based enforcement assigned to Code Enforcement; 5-10 complaints received daily, considered mid-level priority (3 out of 5-tier priority system); initial warning letter issued, administrative citation issued if Code Enforcement Officer observes the violation; upon receipt of complaint, Code Enforcement Officer visits property twice within two weeks to observe if violation is occurring, otherwise closes file on complaint; biggest barrier to enforcement is lack of staffing;

In 2011, the City of Santa Monica issued a staff report disclosing efforts on a 6-month evaluation on implementation of its amended leaf blower regulations. At that time, Santa Monica's Office of Sustainability dedicated leaf blower patrols at least two day per week, lasting 4-5 hours by a staff member. Observed violations were handled with warnings, with two warnings issued prior to any issuance of an administrative citation. The Santa Monica staff report cited 1,133 complaints received in 6-months (November 2010 through April 2011), with 167 violations directly observed during regular patrols in that same time frame; no administrative citations were issued during this time frame.

A copy of the Santa Monica staff report is included as **Attachment 8**.

Enforcement Challenges

Staff contacted various cities that have enacted bans on leaf blowers, and discussed procedures and potential challenges for enforcement personnel. All cities contacted stated that that enforcement was on a complaint driven basis. They stated that it was difficult to actually catch people using the leaf blowers, but would try to find out what days and time of day violations were taking place to attempt to catch violators in the act.

The City of Manhattan Beach began their enforcement by issuing \$100 citations and confiscating blowers. Currently, violations are a misdemeanor and result in \$500 citations to the persons using the blowers. There is discussion that they may cite property owners as necessary in the future.

Del Mar has had a ban since the 1980s and claim that due to the fast turn-over of gardening personnel, they send letters to property owners that explain the ordinance and ask for compliance. They write citations without actually witnessing a violation if there are multiple reports of a property being in violation.

The City of Santa Monica changed their procedure two years ago. Currently they issue \$500 citations with no warning. They also have the landscapers sign a form at business license renewal stating that they understand that there is a ban on leaf blowers. They claim that the no warning and \$500 fine (increased two years ago) has drastically reduced the number of violations.

Locally, the only City that has enacted a ban on gasoline-powered leaf blowers is Indian Wells. Staff contacted Indian Wells Code Enforcement, who stated that they take complaints and try to catch violators. They do not issue violations to property owners for noise generated by their gardeners.

Leaf Blower Exchange Program

The Sustainability Commission has recommended that as part of its leaf blower regulations that the City develop an exchange program of gas-powered leaf blowers for battery-powered leaf blowers, with priority on less efficient / higher polluting 2-stroke gasoline-powered leaf blower engines. If an exchange program was implemented by the City, budget for the program would need to be established and funding appropriated from the Sustainability Fund.

Since 2006, AQMD has sponsored an annual Leaf Blower Exchange Program that funds the exchange of backpack leaf blowers. ***AQMD's program has been available only to commercial landscapers and gardeners operating within AQMD's territory, at a discounted price. It is not available to the general public.*** Since AQMD's Leaf Blower Exchange Program began in 2006, AQMD reports that 12,000 older technology leaf blowers have been replaced, reducing 138,729 pounds of hydrocarbon and NOx emissions, and has reduced smog-forming pollutants by 88,282 pounds per year within the AQMD basin.

AQMD's 2017 Leaf Blower Exchange Program was recently approved April 7, 2017, by the AQMD Board, and accommodated exchange of up to 2,300 older two-stroke leaf blowers with new four-stroke gasoline and zero emission leaf blowers at a cost to AQMD of \$563,400. The Leaf Blower Exchange Program does not provide free leaf blowers to commercial landscapers and gardeners, but did facilitate negotiated reduced pricing from the two awarded vendors (STIHL and DeWALT).

AQMD's 2017 Leaf Blower Exchange Program provides the following discounted pricing to commercial landscapers, on the condition that participating landscapers forfeit and exchange their existing older-technology two-stroke gasoline leaf blowers at the participating dealerships:

- Stihl Model BGA 85 (Electric-Powered Handheld):
Retail Price: \$479.93
Reduced Price: \$200
Discount: \$279.93
- Stihl Model BGA 100 (Electric-Powered Backpack)
Retail Price: \$1,419.92
Reduced Price: \$500
Discount: \$919.92
- Stihl Model BR 500 (Gasoline-Powered Backpack)
Retail Price: \$479.95
Reduced Price: \$250
Discount: \$229.95
- Dewalt Model DCBL790X1 (Electric-Powered Handheld)
Retail Price: \$349
Reduced Price: \$147.49
Discount: \$201.51
- Dewalt Model DCBL590X2 (Electric-Powered Backpack)
Retail Price: \$699
Reduced Price: \$249.99
Discount: \$449.01

A copy of the AQMD staff report is included as **Attachment 9**.

AQMD has just announced its 2017 program opening on July 11, and released an information brochure included as **Attachment 10**. AQMD's 2017 program continues the exchange program from August 14-31, with pre-registration required, and is only available to commercial landscapers and gardeners.

NOTE: There is only one exchange date scheduled for the Coachella Valley in Palm Springs on Monday, August 14, 2017, at the Palm Springs STIHL dealer – Yoshi Lawnmower located at 652 Williams Road, hours 7:00AM to 5:00PM.

The AQMD website providing full details on its exchange program is also found here:

<http://www.aqmd.gov/home/programs/community/community-detail?title=lawn-equipment>

In reviewing the product specifications for the leaf blowers provided through the 2017 AQMD Exchange Program, we noted the following with regard to the noise levels:

- Dewalt Model DCBL790X1: 67 dB
- Dewalt Model DCBL590X2: 63 dB
- Stihl Model BGA 85: 64 dB
- Stihl Model BGA 100: 56 dB*, or 90 dB in “Boost Mode”
- Stihl Model BR 500: 65 dB

It should be noted that all but one of these products exceed the adjusted maximum noise level of 58 dB allowed in low density residential areas, but would satisfy the adjusted maximum noise level of 68 dB allowed in high density residential and commercial areas. All of these products are allowed to be used in the City’s industrial areas.

Development of a City-administered exchange program would require further consideration of the logistics, including amount of funding, type of discount available to participants, vendors available for the exchange, how the exchange is administered, etc. Offering a City-administered exchange program identical to AQMD’s program would require the City to solicit proposals from similar leaf blower vendors, to accept older-technology two-stroke gasoline leaf blowers from residents, with requirements to dismantle and legally dispose of the equipment. The 2017 AQMD Exchange Program costs AQMD \$563,400 for 2,300 units – or a cost of \$245 per unit, and includes the discounted pricing for new leaf blowers and obligation to accept and dispose of the old leaf blowers. For budgeting purposes, offering a similar program in Palm Springs, with up to 500 units exchanged, would cost the City \$125,000 (assuming all pricing is equal).

LEGAL ANALYSIS:

The status quo is that all leaf blowers are allowed throughout the City every day of the week, between 7:00 a.m. and 8:00 p.m. in commercial/industrial zones and between 8:00 a.m. and 8:00 p.m. in residential zones.

Based on direction given at the Council’s May 17, 2017, meeting, staff is providing two alternative Ordinances for consideration: (1) prohibiting gasoline-powered leaf blowers and regulating battery/electric-powered leaf blowers, or (2) prohibiting gasoline-powered and battery/electric-powered leaf blowers.

In the proposed Ordinance, the Council makes a factual finding that as of the date of this Ordinance’s adoption, there is no technology or practice that will prevent gasoline powered leaf blowers and/or battery/electric-powered leaf blowers from constituting a “noise disturbance” as that term is defined under the Palm Springs Municipal Code. That said, as the Council knows from its review of the comprehensive report in February, newer electrical/battery powered leaf blowers emit noise at only a slightly lower level than newer gas powered blowers. As the age of a gas powered blower increases, so does the noise differential. To address the challenges presented by the continued use of

electrical/battery powered leaf blowers, the Ordinance provides the City with authority to develop and issue regulations applicable to all leaf blowers.

Based upon consideration of the positive environmental impact of electrical/battery powered blowers as a tool to maintain the health, safety and welfare of the community, the Council has the discretion to legislate the exemption specified in this proposed Ordinance as to electrical/battery powered leaf blowers.

The City of Palm Springs currently uses gas powered leaf blowers in its operations within several departments, and has engaged a contractor to assist the City in providing essential landscape maintenance services throughout the City. This Ordinance may impact the City of Palm Springs in its maintenance activities, as well as property owners either performing their own landscape maintenance or contracting with private landscape contractors. Based upon Council's past direction, staff undertook an informal but simple empirical study to help the Council evaluate the fiscal and other impacts of this Ordinance. Data is detailed below in the Fiscal Impact section of this report.

The "phase-out" period, as well as the "grace" period during which this Ordinance will be enforceable but not prompt the issuance of any citations, will provide staff with the time to educate affected users, implement a leaf blower exchange program to the extent that the City determines it can proceed with one, commence landscaping classes as they may relate to diminution of the necessity of leaf blowing in general, and continue to research the availability of grant funds to help offset costs the City may incur as detailed below.

ALTERNATIVES:

The following alternatives are available for City Council consideration:

1. Do not adopt regulations limiting the use of leaf blowers;
2. Adopt an Ordinance prohibiting gasoline-powered leaf blowers;
3. Adopt an Ordinance prohibiting gasoline-powered and battery/electric-powered leaf blowers;
4. Provide alternative direction to staff.

AGUA CALIENTE BAND OF CAHUILLA INDIANS:

The consideration of any regulations affecting Tribal allotted/leased lands will require prior review by Tribal staff and the Tribal Planning Commission/Council.

ENVIRONMENTAL IMPACT:

This Ordinance will actually have a positive impact on the environment. As an example of this impact, since the AQMD's Leaf Blower Exchange Program began in 2006, 12,000 old leaf blowers have been replaced, reducing 138,729 pounds of hydrocarbon and NOx emissions per year. The AQMD exchange program has also reduced smog-forming pollutants by 88,282 pounds per year in Southern California.

Furthermore, this Ordinance is not a "project" for purposes of the California Environmental Quality Act (CEQA), as that term is defined by CEQA guidelines (Guidelines) section 15378. This Ordinance is organizational or administrative activity by the City of Palm Springs in furtherance of its police power, and will not result in a direct or indirect physical change in the environment, per section 15378(b)(5) of the Guidelines.

FISCAL IMPACT:

One estimate that city staff secured from a local vendor indicates that an electrical/battery powered leaf blowing unit that the City of Palm Springs will use pursuant to this Ordinance cost around one thousand four hundred twenty dollars (\$1,420.00) per unit inclusive of a single battery, and a high-speed charger and adapter for that battery. Each battery costs approximately four hundred twenty-five dollars (\$425.00). Each battery adapter, apparently necessary as an accessory to each battery, costs around a hundred dollars (\$100.00). Battery life for these units is approximately forty-five (45) minutes; depending upon the nature and extent of each unit's use, at least one "back-up" battery (and adapter) should be acquired along with each unit purchased. In addition, the batteries do not tolerate heat well, and will need to either be stored by the City in a reasonably cool location, or appropriately stored in portable coolers. Although it is not a direct expenditure, this fact may reduce efficiency in the City's leaf-blowing operations because users will have to periodically return from the field to a battery-storage location to change the battery, or retrieve batteries from portable coolers. Potentially, more hours will be spent blowing leaves.

Significant cost savings may be realized in the purchase of new electrical/battery powered leaf blowers through an AQMD leaf blower exchange opening July 11. The AQMD website indicates that on the model referenced in the estimate procured, the City would save nine hundred twenty dollars (\$920.00) on the purchase of the blower with a single battery, with a charger and adapter.

The City's downtown maintenance team engages in three (3) to four (4) hours per day of work involving leaf blowers. That team requires two (2) leaf blowing units, and will require the acquisition of not less than three (3) back-up batteries, and presumably adapters for each unit. That yields a cost of almost three thousand two hundred dollars (\$3,200.00) for the downtown maintenance team.

The City has other teams that use blowers that would need to be replaced – for streets, a single blower, for parks two (2) additional blowers, and for facilities, one (1) more blower. The other teams require fewer replacement batteries than the downtown maintenance team. The City's landscape maintenance contractor also uses leaf blowers. Staff estimates that the contractor employs the use of a dozen blowers in its work.

The City staff cannot provide certainty at this time as to precisely how AQMD and/or other program funds available may mitigate the direct financial impacts described above, or the indirect financial impacts that may arise from any City leaf blower exchange program implemented in the private sector.

Enforcement costs associated with banning gasoline-powered leaf blowers will vary depending upon the specific policy adopted by City Council. Considering a complaint-based code enforcement program, pursuing violations of leaf blower regulations will add to the current workload and assignments of the City's Code Enforcement staff. However, it is recommended that any new restrictions should be preceded with a well-resourced community education program to reduce enforcement requirements.

Costs to property owners for landscape maintenance services, and costs to commercial gardeners/landscapers for business operations would likely increase from new leaf blower regulations. This is due primarily to increased time and labor required with less powerful equipment to complete the cleanup and removal of landscape debris that would ordinarily have been blown and swept, collected and removed by gasoline-powered leaf blowers.

Costs associated with a leaf blower exchange program will vary dependent upon the amount of discount or incentive offered, and the total number of exchanges authorized. As an example, the City previously funded a low-flow toilet voucher program implemented through the City's Wastewater Fund, offering \$100 vouchers on a first-come first-served basis; a total of \$10,000 (or 100 vouchers) was authorized, and were often exhausted quickly each year. A similar program might be developed where the City offers vouchers (in addition to any AQMD incentives) of a specific amount for exchange of 2-cycle gasoline-powered leaf blowers. Details on the logistics of an exchange program will require further analysis, however, for such a program to be effective, initial funding including an educational component, should be anticipated in the \$100,000 range as a pilot program. It is recommended that funding for this type of program be appropriated from available reserves in the Sustainability Fund.

SUBMITTED

Marcus L. Fuller, MPA, P.E., P.L.S.
Assistant City Manager

Jay Virata, Community & Economic
Development Director

David H. Ready, Esq., Ph.D.
City Manager

Edward Z. Kotkin
City Manager

Attachment:

1. June 23, 2016, staff report
2. October 20, 2016, *Desert Sun* article
3. Sustainability Commission Ad-Hoc Subcommittee's report
4. 2000 CARB report
5. Edmonds.com December 5, 2011, report
6. September 2010 Consumer Reports list of CA agencies regulating leaf blowers
7. Town of Los Gatos December 16, 2013, staff report
8. Santa Monica May 24, 2011, staff report
9. AQMD's 2017 Leaf Blower Exchange Program
10. AQMD's 2017 Leaf Blower Exchange Program Brochure
11. Ordinances (2)

Attachment 1

Attachment 2

Attachment 3

Attachment 4

Attachment 5

Attachment 6

Attachment 7

Attachment 8

Attachment 9

Attachment 10

Attachment 11