

**ATTACHMENT C
PRESENTATION TO PUBLIC SAFETY COMMITTEE (DECEMBER 15, 2014)**



Leaf Blower Ordinance (PMC 9.37)

Public Safety Committee
December 15, 2014





Background

- On July 15, 2013 staff presented information regarding the Leaf Blower Ordinance, Chapter 9.37 of the Pasadena Municipal Code
 - In response to citizen complaints, staff was requested to explore options to lessen the negative impacts associated with leaf blower use
- On October 21, 2013 staff presented options for consideration for possible changes to the ordinance
 - Staff was asked to undertake additional review of alternatives
- On January 27, 2014, staff requested additional time due to other Department priorities



Current Ordinance

- > PMC Chapter 9.37 regarding Leaf Blowing Machines reads:
 - In residential areas, hours of operation 8 am-6 pm M-F, 9 am-5 pm Saturdays and prohibited on Sundays
 - In commercial areas, if within 500 ft. of a residential area, 8 am-6 pm M-F, 9 am-5 pm Saturdays and prohibited Sundays
 - Illegal to blow debris beyond property boundaries to adjoining properties or public right-of-way within the city
 - Cannot operate for more than 15 minutes per parcel <1/2 acre and 30 minutes for >1/2 acre
 - Cannot operate more than one leaf blower per parcel
 - Maximum noise level set to 65 decibels from 50 feet away
 - All Leaf Blowers must be licensed and certified by the City of Pasadena



Certified Leaf Blowers

- To operate a Leaf Blower in Pasadena an operator must^{1,2}:
 - > Have a current business license
 - > Display a license sticker on certified equipment
 - > Certification **criteria**:
 - Leaf blower must operate at less than 65 dB at a 50 foot radius
 - After running at least five minutes, not peak over 65 dB at a 50 foot radius
 - > As of end of November – 128 certification stickers have been issued





Risk Assessment-Health Concerns

Leaf Blower risks are generally divided into three risk categories:

- Noise
 - Noise- the direct effects of excess sound causing damage to hearing, and indirect health concerns from the stress of hearing the noise, and loss of sleep.
- Air Pollution
 - Emissions- the detrimental health effects cause by inhalation of noxious fumes including carbon emissions.
 - Dust (particulate matter)- environmental particulates composed of dirt, leaves, pesticides, and other naturally-occurring organic pollutants including bacteria, parasites, fungi.



Noise Concerns

- Health Considerations for dB:
 - > World Health Organization recommends daytime outdoor noise levels of 55 dB or less, 45 dB to meet sleep criteria.
 - > Centers for Disease Control and Prevention (CDC) recommend that for safe noise exposure levels be:

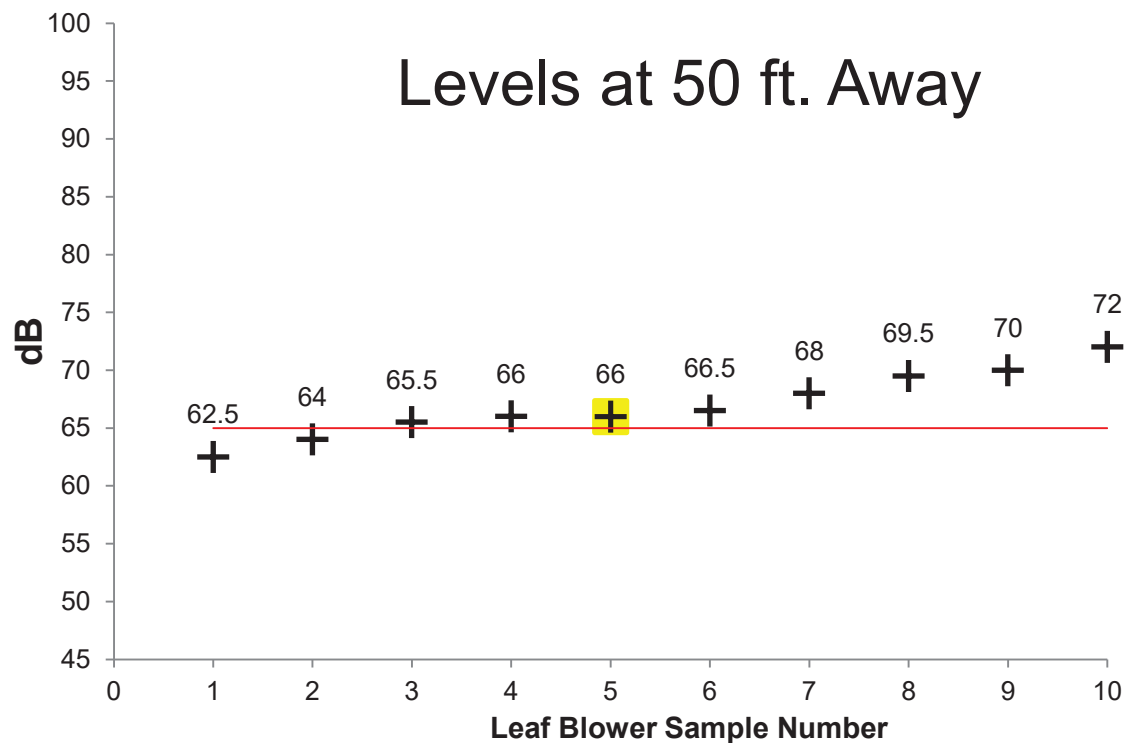
Sound Source	Sound Intensity	Recommended Exposure Limit per 8 hr. workday	Protection Recommendation
Normal conversational speech	60	Any duration	None
Battery-powered pencil sharpener	71	Any duration	None
Leaf Blower { School cafeteria	85	8 hours	Prolonged exposures might cause slight hearing loss. Hearing protection should be used if regularly exposed to this sound level.
Wood or metal shop, power tools, snowmobile	100	15 minutes	Hearing protection should be used if exposed to this sound level beyond limit.
Personal stereo system at high volume	105	5 minutes	Hearing protection should be used if exposed to this sound level beyond limit.
Ambulance siren	120	9 seconds	Hearing protection should be used if exposed to this sound level beyond limit.
Firecrackers, firearms	140-165	Immediate hearing damage possible	Hearing protection should be used whenever exposed to this sound level.

Source: The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention. 'Occupational Noise Exposure'. Accessed online at <http://www.cdc.gov/niosh/docs/98-126/>. August 25, 2014.



Noise Concerns

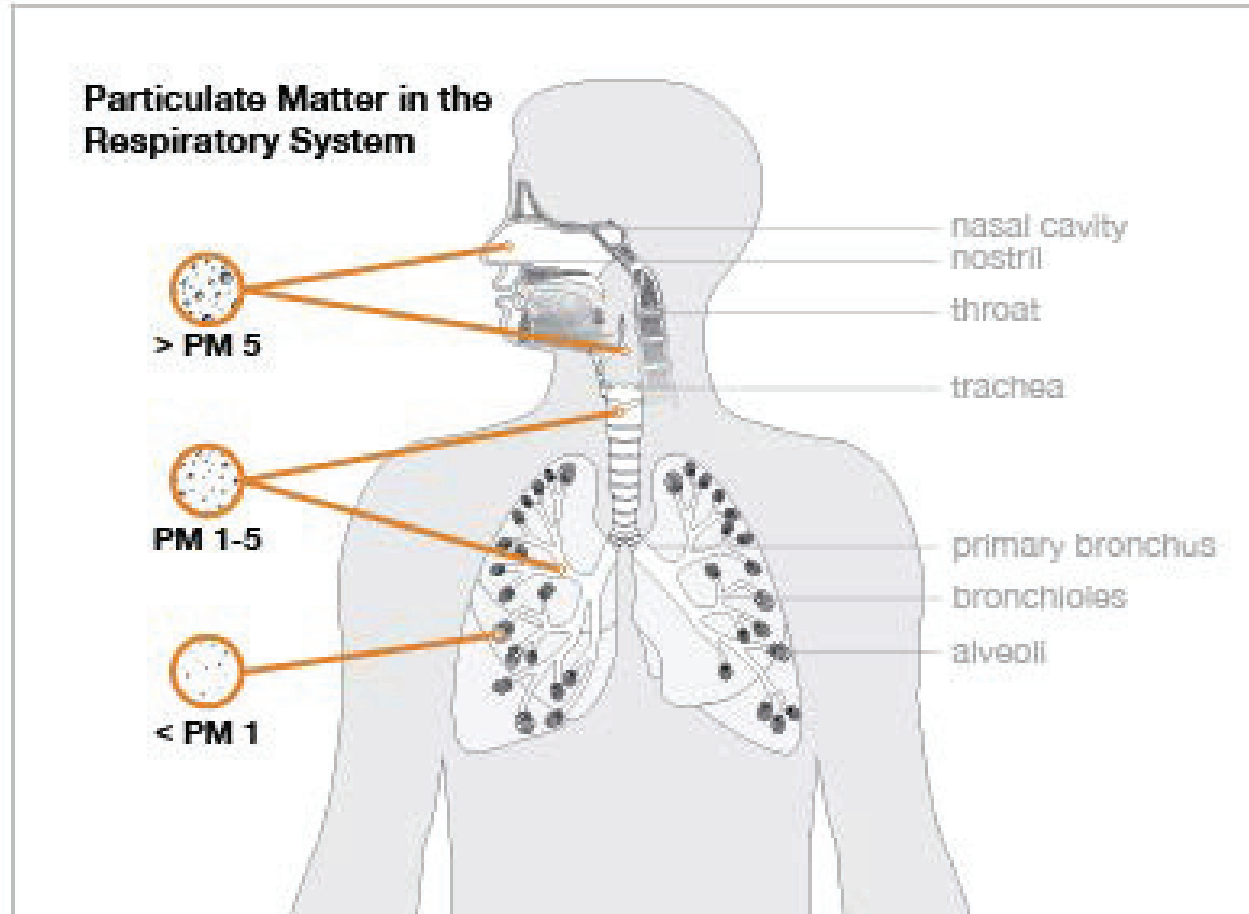
- From a sample of 10 leaf blowers, the noise in the field was:



Source: Environmental Health Division, Pasadena Public Health Department. Data collected August 2014 in Pasadena. Certification of leaf blowers was not evaluated at time of survey.



Dust Concerns



Source: Alen Corporation. 'Learning Center'. <http://www.alencorp.com/articles/everything-you-need-to-know-about-particulate-matter.asp> Accessed 12 August 2014.



Dust Concerns

- Study completed by UCR & San Joaquin Valley Unified Air Pollution Control District

Table 7. Emission factors for blowing, vacuuming, raking and sweeping on concrete surfaces.

Blower Type	Number of Tests	PM 2.5 (mg/m ²)	PM10 (mg/m ²)	TSP (mg/m ²)
Elec. Blower	3	40	130	170
Gas Hand Held	3	10	40	50
Gas Backpack	3	30	70	70
Push Broom	3	20	80	110
Rake	3	0	0	10
Elec. Blower-Vac Mode	3	30	80	90
Average (all)		20	70	80
Average (power blowers/vacuums only)		30	80	100

All cleaning was performed on concrete surfaces at CE-CERT with surrogate soil

Source: Fitz D, Arecmont G. 'Determination Particulate Emission Rates from Leaf Blowers'. Environmental Protection Agency. Accessed online at <http://www.epa.gov/ttnchie1/conference/ei15/session5/fitz.pdf>. August 12, 2014.



Leaf Blower Emission Concerns







- California Air Resources Board Report in 2000
 - > Two-stroke engines have been improved thus reducing engine emission
 - > Statewide Inventory of Leaf Blower Exhaust Emissions (tons per day)

	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

Source: Air Resources Board, Environmental Protection Agency. February 2000. Accessed online at <http://www.arb.ca.gov/msprog/mailouts/msc0005/msc0005.pdf> August 20, 2014.



Total Hazard Assessment

	Operator	Resident
Noise	With proper ear protection risk is adequately mitigated for those with loudest machines 	Health Dept assessment showed low compliance. 
Emission	Evidence suggests exposure to fumes is high and can lead to long-term increase in risk. No protection available. 	Risk is highest to those in close proximity, risk is limited to residents in their homes, or to a passersby. 
Dust	With a mask (ex- N95) risk is adequately mitigated. 	Concern for at-risk residents, most risk mitigated after a few minutes. 



Immediate Health Hazard



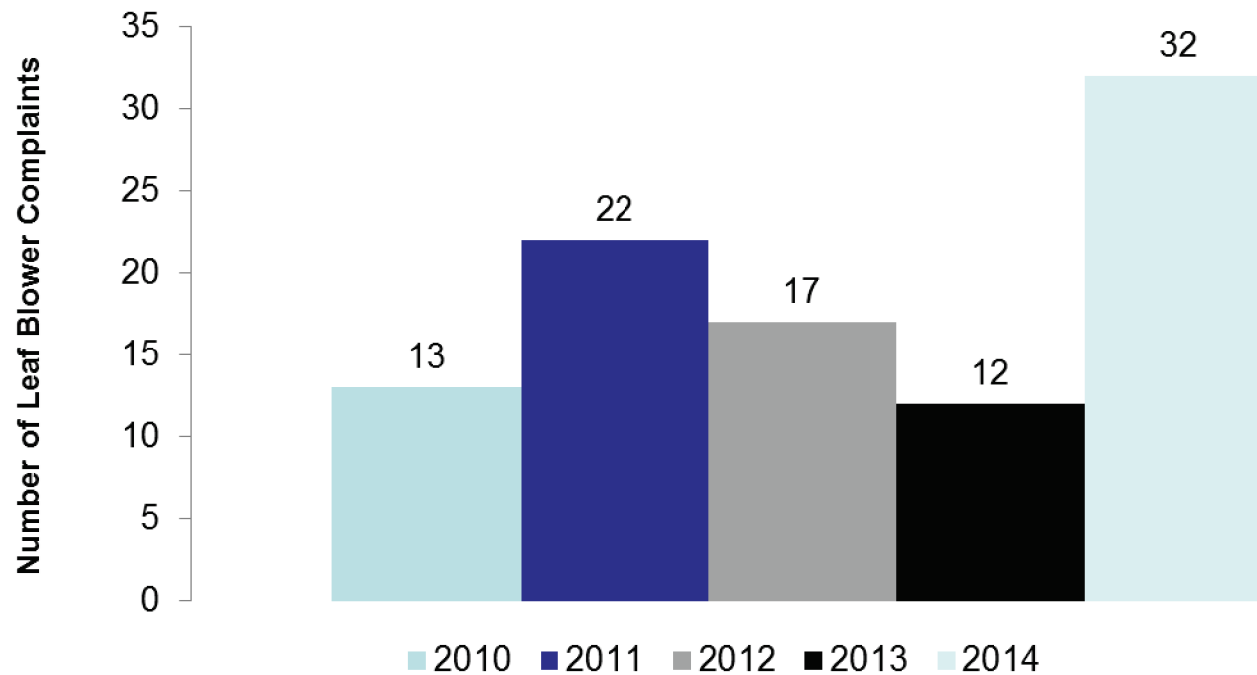
Preventable



No Immediate Health Hazard



Number of Leaf Blower Complaints by Year (2010-2014*)

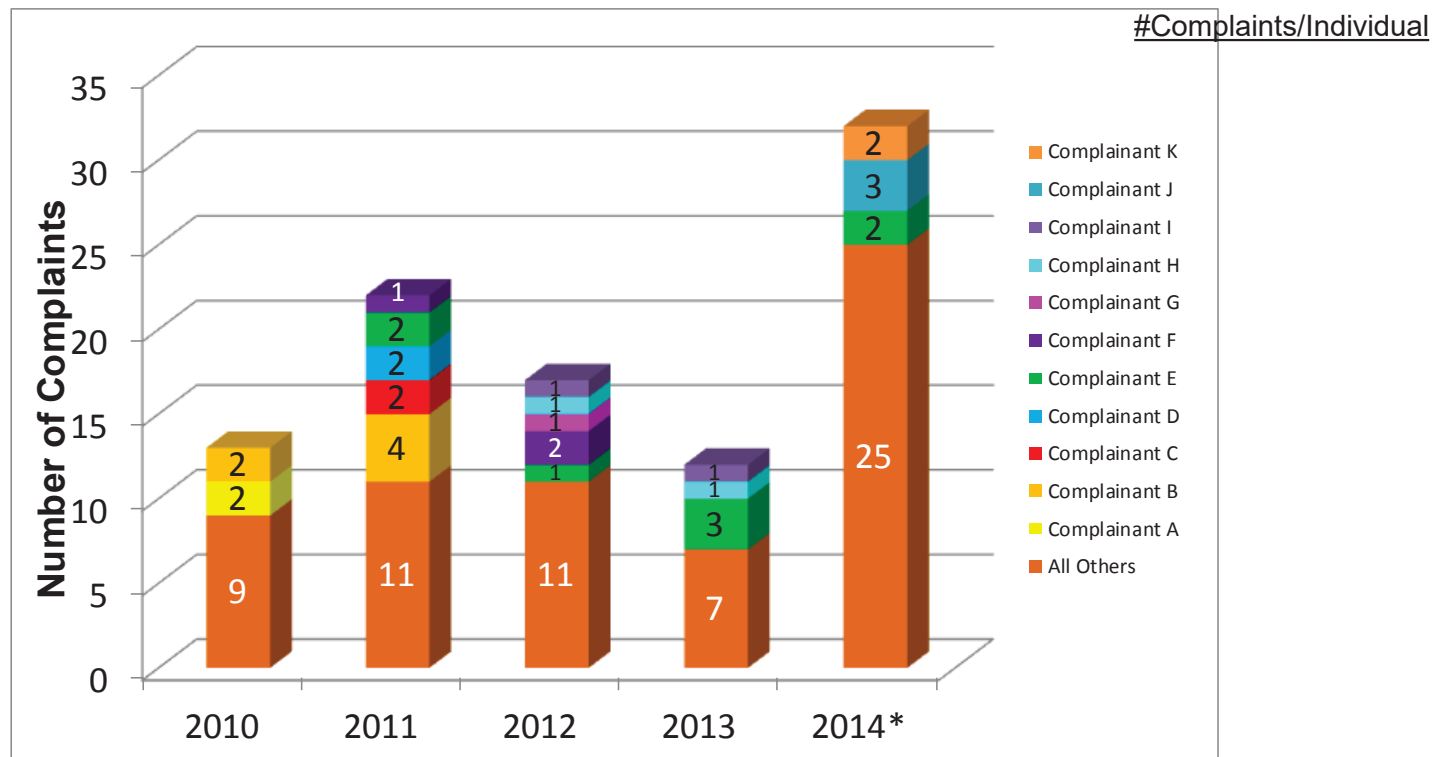


*Data as of 12/08/2014

Source: Environmental Health Division, Pasadena Public Health Department. Unpublished Raw Data.



Complaints by Year by Complainant

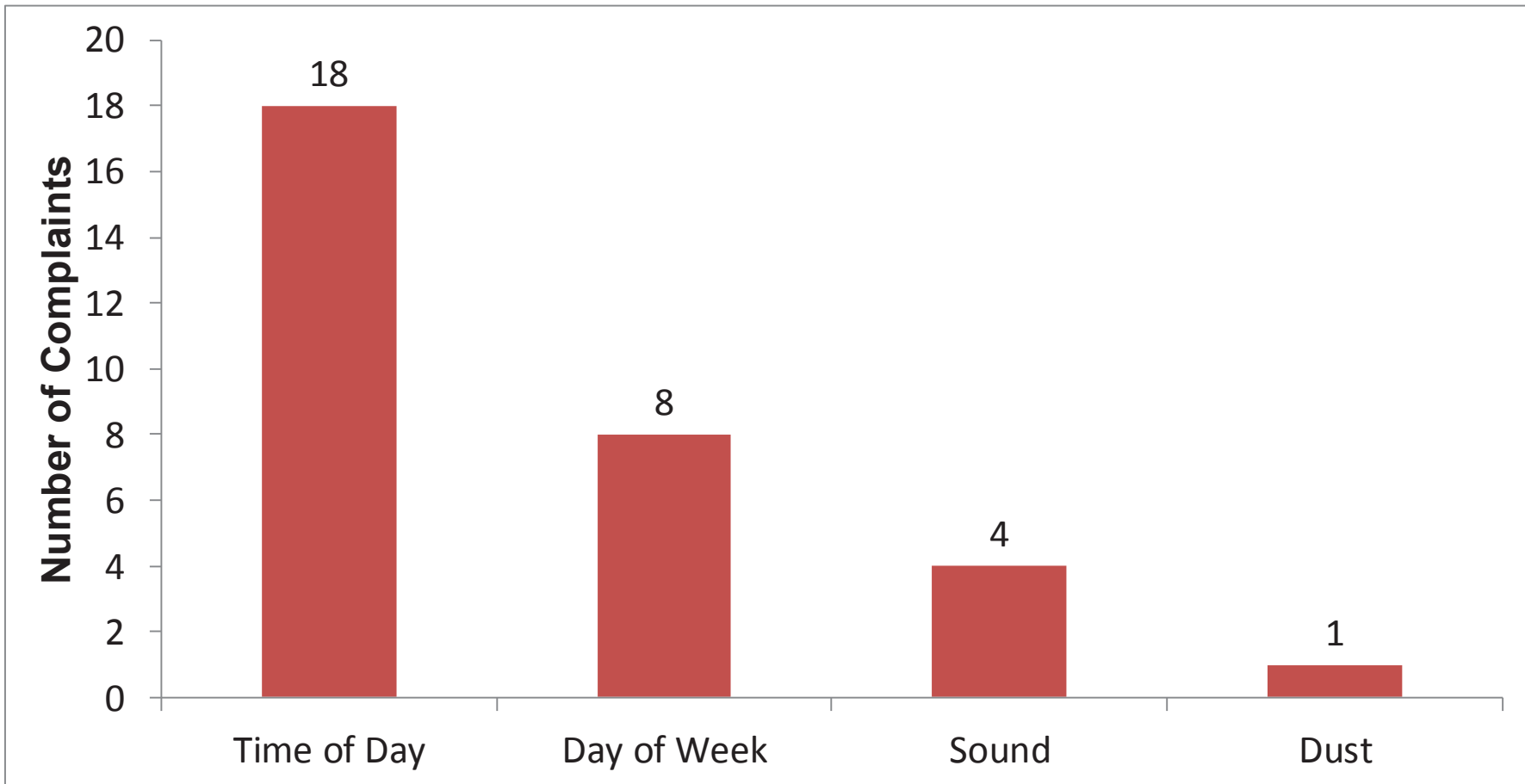


Source: Environmental Health Division, Pasadena Public Health Department. Unpublished raw data.

*As of 12-08-2014



Complaints by Type 2014*



Source: Environmental Health Division, Pasadena Public Health Department. Unpublished raw data.

*As of 12-8-2014



Recommendation

- Staff recommends maintaining current regulations
 - Continue to respond to complaints as they are received
 - Take progressive enforcement action as necessary
 - » Warning → Administrative Citation
 - Continue to work with Business License during the issuance and renewal process to educate licensees of ordinance restrictions
 - Transitioned enforcement to Code Enforcement as of October 2014
 - Certification will remain with Environmental Health



Alternative – Ban all leaf blowers

➤ Ban all leaf blowers within the City of Pasadena

- Currently, 5 cities within California have banned all leaf blowers (Del Mar, Hermosa, Laguna, Manhattan & Santa Monica)
- The California Landscape Contractors Association does not support a full ban on leaf blowers
- The City's landscape contracts would be impacted since the use of leaf blowers is standard practice – City Council could exempt City operations



Ban all leaf blowers – Contract and City Employee Impacts

PARK AREAS

- 23 City parks that require leaf blowers
- Current practice of blowing down a park requires one person per hour to blow six acres of turf
- A ban on blowers would require one person approximately 3-4 times longer to sweep up leaves and debris by hand

NON PARK AREAS

- The contracts for landscape maintenance would experience cost increases due to extra manpower necessary to hand sweep all sites instead of blowing them down
- Weed and brush clearance contractor also uses blowers when doing road side clearance

Questions?

