

CITY OF LOS ANGELES
INTER-DEPARTMENTAL MEMORANDUM

Date: February 10, 2022

To: Honorable City Council
c/o City Clerk, Room 395
Attention: Honorable Mike Bonin, Chair, Transportation Committee

From: Seleta J. Reynolds, General Manager 
Department of Transportation

Subject: **IMPACTS OF VEHICLE POLLUTION AND IDLING**

SUMMARY

In response to Council File (CF) 19-0604, this report provides an overview and strategies for reducing the impacts of vehicle pollution and idling on neighborhoods in Los Angeles. This report also presents recommendations for creating a campaign to prevent vehicle idling.

RECOMMENDATION

That the Los Angeles City Council (Council) RECEIVE and FILE this report.

BACKGROUND

On June 5, 2019, Council considered a motion (Koretz - Harris-Dawson) relative to restricting parked vehicle idling. The motion states that parked vehicle idling in California contributes approximately three million tons of carbon dioxide to the atmosphere annually and requests the City Attorney to prepare an ordinance to restrict parked vehicle idling to one minute or less and to direct LADOT to launch an education campaign on the new regulations and the dangers of parked vehicle idling.

At its meeting held May 4, 2021, the Transportation Committee amended this motion to focus on an educational campaign focused on the impacts of vehicle idling. On May 24, 2021, Council directed LADOT to report with an education program on the new regulations and the dangers of parked vehicle idling, including worsening air and climate pollution and the importance of expanding zero emission vehicle use and supportive infrastructure.

DISCUSSION

The need for climate action is urgent. In a 2018 United Nations report, thousands of scientists and government reviewers agreed that limiting global temperature rise to no more than 1.5° Celsius would help us avoid the worst climate impacts and maintain a livable climate. The emissions that cause climate change come from every part of the world and affect everyone. The 10 countries with the largest emissions contribute 68% of total emissions. Countries creating higher emissions, including the United States, have a greater responsibility to act with more urgency.

The American Lung Association 2021 "State of the Air" report finds that despite some nationwide progress on cleaning up air pollution, more than 40% of Americans—over 135 million people—are living

in places with unhealthy levels of ozone or particle pollution. The burden of living with unhealthy air is not shared equally. Communities of color are over three times more likely to be breathing the most polluted air than communities with a majority white population.

Vehicle idling is part of the climate action picture. The US Department of Energy estimates idling for more than 10 seconds uses more fuel and produces more emissions than stopping and restarting your engine. Researchers estimate that idling from heavy-duty and light-duty vehicles wastes about six billion gallons of fuel annually. Personal vehicles comprise half of that waste. Eliminating idling of personal vehicles would be the equivalent of taking five million vehicles off the roads. While completely eliminating idling may not be feasible, there are solutions to reducing idling, improving air quality, and mitigating climate change in Los Angeles.

Opportunities for Pollution Reduction

In California, the transportation sector is the leading emitter of greenhouse gas emissions (GHG), responsible for 39% of total GHG emissions in the State of California. The American Lung Association 2021 "State of the Air" report ranks the Los Angeles metropolitan areas as the worst for ozone pollution and fourth worst for annual particle pollution in the nation.

Breaking down the data identifies specific sources of pollution and potential opportunities for air pollution reduction. The South Coast Air Quality Management District (SCAQMD) 2020 Annual Report lists fuel burned from on road sources (42%) and off road sources (41%) including trucks as a leading cause of Nitrogen Oxide (NOx) pollutants in Southern California. A leading cause of fine particulate matter (PM2.5) pollutants in Southern California are on road sources (17%), road dust (15%), and off road sources (11%) including vehicles. Attachment A further details each pollutant and their main sources.

The effects of air pollution are not felt equally throughout the Southern California region. According to the Los Angeles Health Atlas (2013), a major source of air pollution is particulate matter (PM) from diesel exhaust, which is concentrated near freeways, ports, and other major transportation infrastructure. Over 360,000 residents of the City of Los Angeles live within 500 feet of a major truck route (Attachment B). The Southeast Los Angeles, South Los Angeles, San Pedro, Wilshire, and Boyle Heights Community Plan Areas had the highest number of people living within 500 feet of a truck route. The percentage of population within 500 feet of truck routes was highest in San Pedro (31%), Harbor Gateway (28%), and Boyle Heights (25%). In several Community Plan Areas more than 10% of the population lives near major truck routes, the port, manufacturing, warehousing, distribution, and refinery and chemical plants (Attachment C). These communities include Harbor Gateway, Boyle Heights, Silver Lake-Echo Park-Elysian Valley, Wilmington-Harbor City, Central City, Central City North, and Palms-Mar Vista-Del Rey. Some communities bear a higher share of the pollution burden and resulting undesirable health outcomes. LA's Green New Deal (Executive Directive 25) outlines numerous targets and pathways to address these outcomes.

Opportunities to Reduce Idling Related Pollution

While idling is not the main source of greenhouse gas pollution in Southern California, it is a by-product of driving. The following key areas of concern and focused solutions offer possible next steps:

Traffic Reduction: The greatest opportunity to curtail air pollutants, including those from idling, is to reduce overall traffic on freeways, major roads, and in residential neighborhoods. Short term solutions

include investing in transit and active transportation infrastructure, reducing subsidies for vehicle parking, expanding parking management strategies like Express Park, collaborating regionally on transportation demand management strategies, and studying the feasibility of Metro's Traffic Reduction Study pilots to decongest roadways and increase mobility options. Long term strategies include better linking land use with sustainable transportation and increasing land use diversity to support short trips by walking and bicycling.

Freight: State anti-idling legislation already focuses on freight vehicles. The California Air Resources Board (CARB) runs campaigns to reduce commercial vehicle idling and encourages residents to report vehicles idling for more than five minutes. However, studies, including the City of Los Angeles Health Atlas, show that there is room for additional strategies to reduce pollutants from freight, especially in low-income communities of color. LADOT is posting new signage in areas surrounding the port in order to enforce existing anti-idling laws that prohibit commercial vehicle idling. The Zero Emissions Area (ZEA) Plan highlights the need to encourage zero-emission electric freight, with a focus on light- and medium-duty delivery vehicles. Medium-duty freight trips are a significant contributor to GHG emissions in Los Angeles and often pass through low-income neighborhoods, contributing significantly to air and noise pollution as well as increasing traffic safety risks. Areas near freeways with a high concentration of diesel truck activities are considered to be air pollution hot spots. Nonprofit leaders interviewed as part of the ZEA Plan development noted an urgent need to address nonresidential delivery freight on residential streets given the significant air pollution and road safety risks they introduce. Although much of the responsibility to transition freight to cleaner electric delivery vehicles falls on the private sector, the public sector can also support the transition by:

- Reducing speeds by designing speed-slowing infrastructure to discourage high cross-through truck traffic volumes;
 - Piloting favorable curbside policies that prioritize access for zero-emission freight based on time of day (such as peak delivery hours);
 - Piloting innovative zero-emission delivery options such as e-cargo bikes or shared e-vans, which have more readily available EV options and technology; and
 - Providing direct and differentiated services to low-income drivers and businesses, such as financial rebates for insurance, permits, and fees.
- Drive Thrus: Drive thrus are a visible display of idling commonplace throughout the City of Los Angeles. Drive thru designs prioritize drivers over adjacent neighbors and people who walk or use transit. Some communities have enacted regulations that prohibit new drive thru in specific plans, including the Colorado Specific Plan in Eagle Rock. Considering a citywide ban on new drive thrus and on vehicular oriented design that degrades the public right-of-way and the pedestrian experience can directly address idling.
 - School Zones: State [anti-idling legislation](#) already focuses on school buses. School drop off and pick up in personal vehicles often results in long queues of idling cars awaiting their turn. Investing in holistic Safe Routes to School infrastructure that improves safety and comfort of people of all ages and abilities has been effective in shifting driving trips to walk, bike, or transit trips. Similarly, investing in stress free infrastructure on neighborhood streets could improve access to neighborhood destinations, like schools.
 - Deliveries: App-based deliveries have increased pressures on the curb lane where drivers often idle while awaiting their food delivery pickup. Short term strategies include LADOT Zero Emission Delivery Zones (ZEDZ) effort to partner with local businesses to expand curbside access

for zero emission delivery vehicles, such as electric cargo bicycles and electric powered delivery trucks (CF #21-0147). LADOT is also pursuing ways to digitally manage the curb through the Code the Curb project (CF #15-1450-S2). Long term strategies include reducing reliance on third party delivery apps by supporting sustainable land use strategies and investing in transportation projects that increase access to destinations by walking, bicycling, and transit trips.

- Transportation Network Companies (TNCs): Similar to app-based deliveries, Transportation Network Companies (TNCs) (app-based rideshare services) have increased pressures on the curb lane where drivers often idle while awaiting their next passenger. The California Public Utilities Commission regulates TNCs, preempting the City from any regulatory action that would reduce TNC curb idling. Council directed LADOT to create TNC loading zones to better manage competing demands at the curb, which could in turn reduce vehicle idling. Unfortunately, without adequate access to data from companies that operate TNCs, LADOT is unable to complete that work. Council also directed the Chief Legislative Analyst (CLA) to report on options for sponsoring state legislation to improve regulatory oversight over TNCs (CF 18-0449). Improved data and local regulations would ensure TNCs supported rather than undermined local policy goals, including improved air quality.
- Zero Emissions Areas (ZEA): Investing in ways to equitably open public space to people can create areas of the City that are free from idling cars and resulting pollution. The City of Los Angeles recently pledged to create a Zero Emissions Area (ZEA) by 2030 and developed a ZEA Plan that includes strategies for planning and implementing ZEAs in the City of Los Angeles. This diverse set of mobility interventions can create a space where there are fewer vehicles and all trips are zero-emission. Existing City of Los Angeles efforts to increase public space include: People Street, Great Streets, Play Streets, Slow Streets, sidewalk dining, and LA Al Fresco.
- Automated license plate recognition (APLR): Exploring the potential for automated license plate recognition (APLR) to play a role in measuring effectiveness of a campaign and as an enforcement tool of any future vehicle idling legislation can shed light on opportunities and challenges for further consideration.

Campaign to Address Vehicle Idling

In addition to the strategies outlined above, partnering with agencies like CARB and AQMD to reduce pollution through an educational campaign can be successful when focused on priority areas of concern. Those priority areas include a geographic focus on the most impacted communities, as well as a focus on opportunity areas for pollution reduction outlined above.

- Campaign Template: CF 19-0604 references the Save the Drop LA campaign to promote water conservation as a potential template for an anti-vehicle idling education campaign. Save the Drop LA was a multi-million dollar campaign in which a third-party advertising agency developed creative assets including illustrations, taglines, video and audio for use on billboards, television, and radio. Save the Drop LA also employed City-owned assets such as DASH buses which are available at reduced cost to the City. The campaign is credited with helping reduce water consumption in Los Angeles by 21% in the first year since the campaign was launched.
- Third Party Advertising Agency: While the City can and should exercise control in approving creative assets and distribution plans, Save the Drop demonstrated that advertising agencies are best equipped to develop materials and strategies. An effective campaign to reduce vehicle

idling will require market research, creative design, message testing, and staff time for which City agencies are under resourced. By using a third party agency, the resulting campaign is more likely to prove engaging and effective at changing behavior.

In this arrangement, the City serves as the client to an agency selected through a competitive process. LADOT or a designated ad-hoc committee can review materials submitted by agencies and make a selection based on the most compelling strategies and message.

- Budget: The Save the Drop LA campaign leveraged in-kind services and City-owned assets to reduce overall costs for a multi-million dollar ad buy equivalent campaign. Achieving a similar outcome in which there is a measurable change in behavior would require a budget similar in scope estimated between five and ten million dollars.
- Potential Funding Sources: In the past, LADOT and LA Metro funded transportation educational campaigns with grant funding from the California Office of Traffic Safety (OTS). However, OTS funding is focused on traffic safety with goals of crash reduction. LADOT is not aware of specific funding sources for pollution reduction focused campaigns, but can explore working with partner agencies including CARB and AQMD to seek funding locally or regionally.

FINANCIAL IMPACT

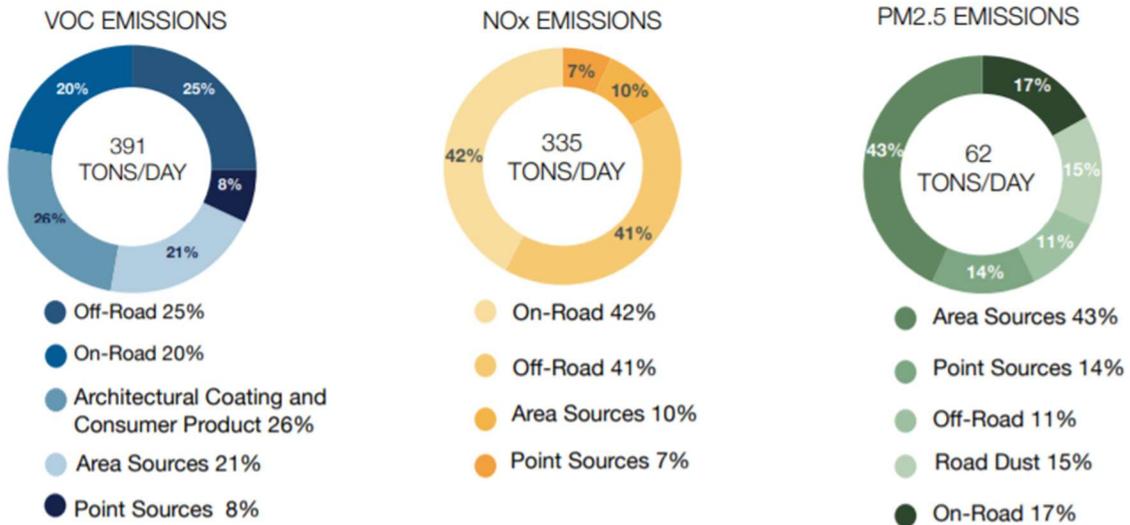
There is no financial impact from this report.

SJR:rg:cs

Attachments

Attachment A: Summary of Emission Sources ([2020 AQMD Annual Report](#))

2020 EMISSION SOURCES



Fine Particulate Matter (PM2.5)- inhalable particles, 30 times smaller than the width of a human hair, that are emitted from a variety of sources such as vehicles, wildfires and industrial sources. PM 2.5 also forms in the atmosphere from the reaction of gases emitted from these same sources.

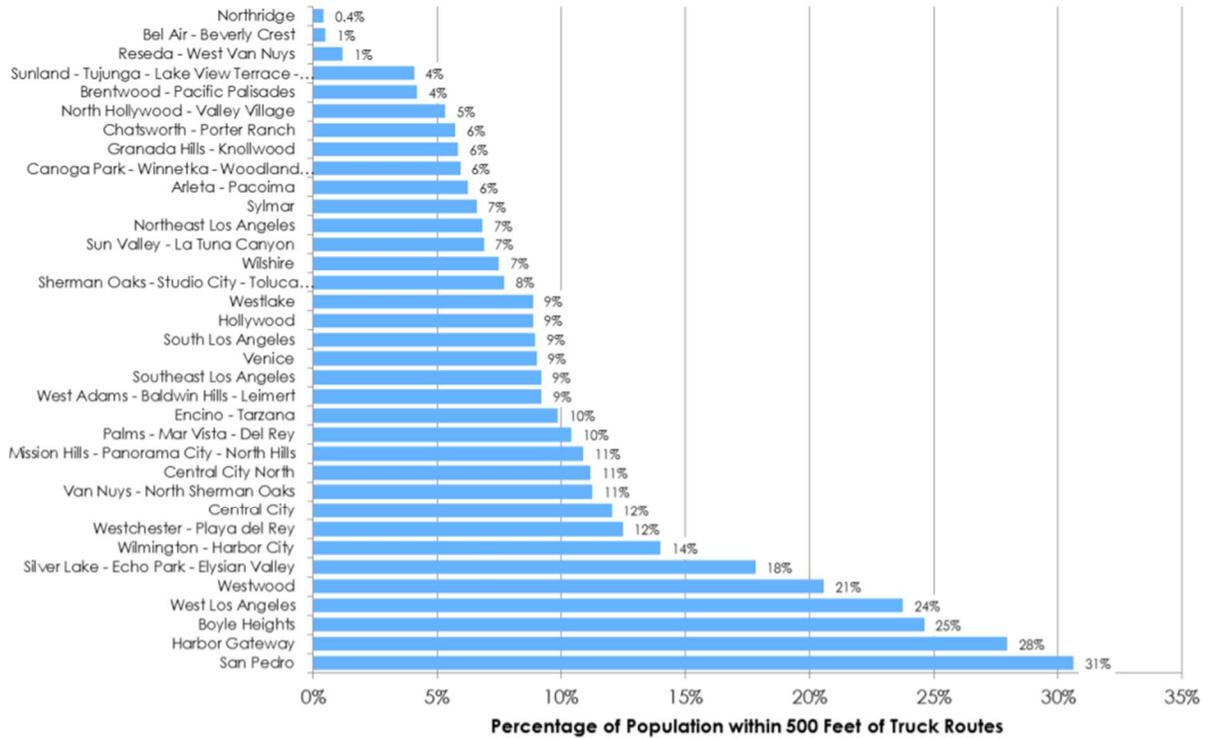
Nitrogen oxides (NOx)- formed when fuel is burned. Sources include trucks, ships, trains, construction equipment, boilers, power plants, and fires.

Volatile organic compounds (VOCs)- can be emitted from a variety of sources such as paints and lacquers, organic solvents, cleaning supplies and pesticides.

Ozone (commonly known as smog) is formed from the reaction of VOCs and NOx in the presence of sunlight. Higher temperatures and intense sunlight combined with stagnant weather tend to accelerate the formation of ozone.

Attachment B: Population within 500 Feet of Truck Routes by Community Plan Area in 2010 (City of Los Angeles Community Health Atlas)

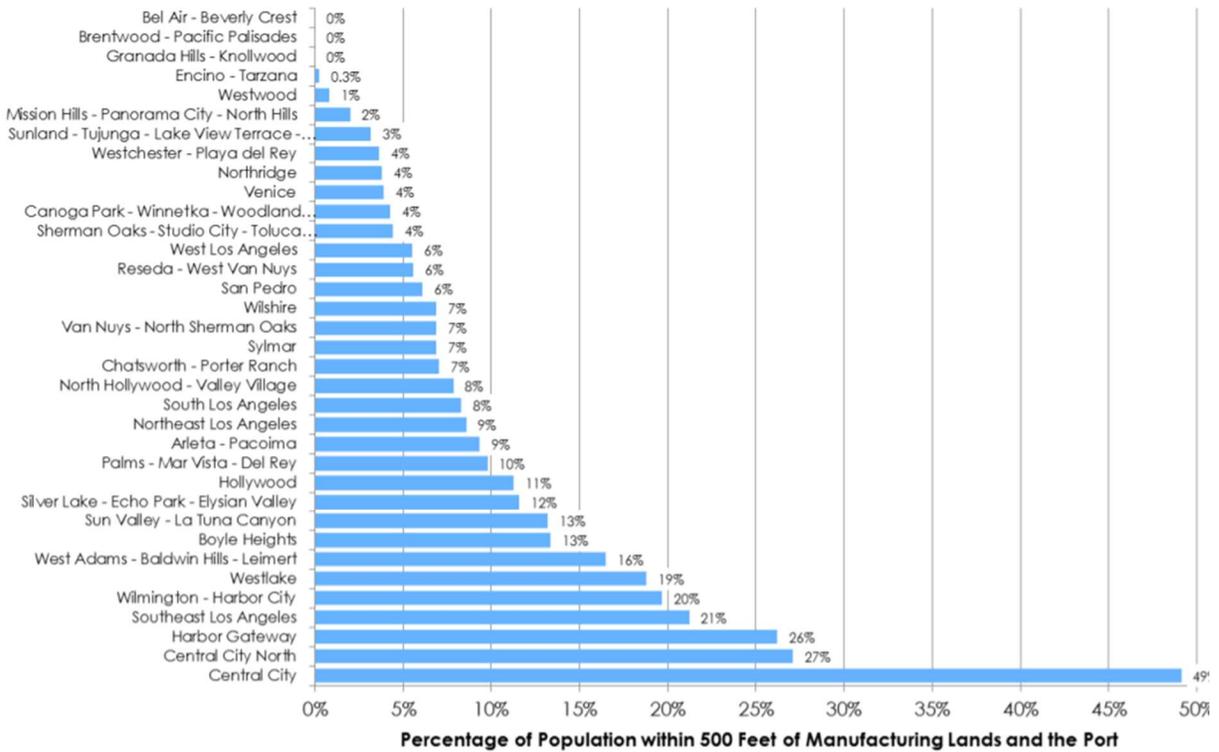
Figure 61: Population within 500 Feet of Truck Routes by Community Plan Area in 2010



Source: 2010 Census population data. Accessed from American FactFinder.

Attachment C: Population within 500 Feet of Manufacturing Lands and the Port by Community Plan Areas in 2010 (City of Los Angeles Community Health Atlas)

Figure 62: Population within 500 Feet of Manufacturing Lands and the Port by Community Plan Areas in 2010



Source: Los Angeles County Office of the Assessor parcel database (2012). 2010 Census population data.