

»Don't Waste L.A.

A Path to Green Jobs, Clean Air and Recycling for All

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Foreword

Dear friends,

It sounds almost cliché at this point ... but we have become a society that throws too much away. This would be problem enough, but worsening that reality is the fact that we're burning and burying more and more of our throwaway world every year. This, of course, has significant consequences: exhaustive and unsustainable resource extraction, transportation to make products, transportation to throw away products, landfills and incinerators emitting greenhouse gases. Moreover, throughout the nation, communities actually export their waste to other cities—and other countries—because they don't have adequate systems to manage their waste locally. So, realistically, we find ourselves at a crossroad: continue to trash our planet without adequately accounting for the externalities or move toward a zero waste society.

The idea of a zero waste society presupposes that much of the waste we throw away can be reduced, repaired and reused, or recycled—and the great news is, it can. We can develop waste-flow systems that will help protect our remaining resources, reduce greenhouse gas emissions, and decrease our reliance on landfills and incinerators. We can make sure that safe and clean trucks pick up materials from our homes and businesses and that recycling facilities are good neighbors that add to the health and vitality of communities rather than hurt them. And, in the process of realizing this zero waste vision, we can create new green jobs and new green industry.

It's all possible, but it requires hard work.

It requires developing infrastructure to effectively sort recyclables so that they can be remanufactured into new materials; it requires turning food scraps and yard trimmings into usable compost; and it requires fostering new businesses that promote the exchange and reuse of old materials. It requires ensuring that the trucks transporting our waste and recyclables are clean, and that the green jobs are livable and environmentally friendly. It requires, ultimately, developing comprehensive approaches that address the entire waste process. This is all hard work—but it's possible and it's necessary.

On the path to a zero waste society, Los Angeles represents both obstacle and opportunity. On the one hand, the City has made solid progress in its recycling efforts. In fact, it has the highest recycling rate of any big city. On the other hand, the raw numbers in waste are what really count and they're staggering: Los Angeles still sends over three million tons of waste and recyclables to landfills and incinerators every year. Simply put, *that* is an overwhelming amount of trash—and that means the City still has a lot of work to do. Los Angeles is in need of some comprehensive solutions.

In Los Angeles, commercial waste, specifically the trash and recyclables generated in businesses and apartment complexes, makes up the largest proportion of what goes to landfills. For that reason, addressing the waste-flow system in those sectors-from pickup to processing-is fundamental to mitigating the negative impacts of its trash problem. This report examines the current system for collecting materials from commercial businesses and apartment buildings in the City of Los Angeles. The system is preventing the City from reaching its environmental and economic zero waste goals due to a lack of recycling, collection truck and green job standards. The report advocates for a rational system that would empower the City to provide recycling services to all customers, improve efficiencies, and protect public health and the environment. It's a complicated process to be sure, but if Los Angeles does that hard work and successfully realizes its zero waste vision, the environmental and economic impacts will be potentially unprecedented.



lichael Burn

Michael Brune Executive Director Sierra Club

Executive Summary

Resolving our society's trash problem is one of the major environmental challenges of our time. In Los Angeles County, this crisis has reached urgent proportions. As one of the largest waste markets in the country, Los Angeles County generates 23 million tons of waste and recyclable materials and sends over 10 million tons of waste to landfills each year. Many of the remaining landfills in the county will reach capacity and close in the coming years, and officials project that as early as 2014, we will be making more trash than our landfills can handle.

The City of Los Angeles creates a third of the county's waste that goes to landfills and therefore has a major role to play in addressing this crisis. Recognizing this, the City has set an ambitious and worthy goal of becoming a zero waste city by 2030. However, reaching this goal will be impossible without reforming the dysfunctional and inefficient trash collection and processing system for the City's businesses and large apartment complexes.

Reforming this system is key to reaching not only the City's recycling goals but also its goal of creating new green jobs in the recycling sector. In the midst of one of the worst economic crises in modern history, the City of Los Angeles' unemployment rate stands at an alarming 14 percent. By raising standards for the waste industry, the City can create good green jobs to put people back to work, bring families out of poverty and rebuild the local economy.



Findings

Los Angeles will not meet its environmental goals without dramatically transforming its waste collection system for businesses and large apartment complexes.

- » Businesses and large apartment complexes create nearly 70 percent, or 2.5 million tons, of the waste that the City sends to landfills each year.
- >> The current system lacks basic standards for recycling. Many Los Angeles business and large apartment tenants have no recycling services.
- » Once waste is collected from businesses and large apartment complexes, the City has virtually no control over where it goes or how it is handled. If recycling sorting facilities do not adhere to high-quality standards, "recycled" materials can end up in a landfill.
- » Landfills are major contributors to pollution and climate change. The City of Los Angeles has set a goal to reduce carbon dioxide emissions by 18.9 million metric tons by 2030, and nearly a quarter of this reduction can be accomplished by achieving "zero waste."

Don't Waste L.A.

With landfills closing, the growing recycling industry has the potential to create thousands of new green jobs. Despite the growth potential, under the current system, many recycling jobs are low paying.

- » For every one job at a landfill, 10 jobs could be created at a recycling sorting facility if that waste were sorted rather than buried.
- » Recycling jobs are lower paying jobs: employees at recycling sorting facilities in the City of Los Angeles are paid an estimated \$28,000 annually compared with the estimated \$44,000 paid on average to landfill employees.
- » Proper training and job standards are critical to ensuring that recycling jobs are good green jobs.

The current "open market" permit system for the commercial and multifamily sectors is dysfunctional and inefficient, hurting customers and the City. The City is missing an opportunity to increase revenue, and studies have shown that open markets can lead to unfair and inconsistent rates for customers.

- >> The City's permit system grants permits to 125 waste haulers to collect waste and recyclable materials from business, large apartment complex and construction customers.
- >> Without designated collection routes, truck routes overlap, creating serious environmental and economic costs. Multiple waste haulers are picking up trash on the same block.
- » Some Los Angeles business and apartment customers are paying much higher rates than others, despite similar services.
- >> According to recent City audits, 10 out of 12 major haulers understated their gross receipts, and the City was owed \$1.3 million. Due to the difficulty of auditing more than a hundred haulers, the City continues to be vulnerable to underpayment.
- » At the same time, the City is undervaluing the worth of its waste and recycling market and could be earning more revenue by increasing recycling and improving market efficiencies.

Private waste haulers servicing Los Angeles' businesses and large apartment complexes are not subject to regional air quality standards and are some of the biggest violators of state standards.

- » Government experts estimate that private waste haulers often use older diesel trucks. These trucks tend to have low gas mileage and pollute the air as they stop and start on city streets.
- » Because Los Angeles is one of the most polluted air basins in the nation, the South Coast Air Quality Management District (SCAQMD) passed Rule 1193 requiring solid waste collection vehicles to transition to cleaner-burning or alternative-fuel technologies. However, because the rule does not apply to waste haulers in open markets, private waste haulers in Los Angeles are exempt.
- » On the state level, the California Air Resources Board implemented the Solid Waste Collection Vehicle Rule, which requires owners to retrofit trucks with diesel emission reduction technologies. Over the past two years, waste haulers that operate in Los Angeles' open market were responsible for most of California's major enforcement cases involving this rule.

Workers in the waste industry are responsible for protecting public health but face significant workplace hazards.

- >> Dangerous items such as needles, toxic waste and dead animals can end up in the waste stream and must be handled safely to protect the public and workers.
- >> Workers in the waste industry have one of the highest injury and illness rates in California, more than double the rate for private industry overall.
- » Waste collectors face fatality rates similar to those of police officers and firefighters.



Policy Recommendations

For the City to successfully reach its zero waste goals to improve the environment and create green jobs, it should adopt a competitive commercial and multifamily waste franchise system. This will enable the City to negotiate enforceable contracts containing high standards for recycling services, fair and consistent rates, collection vehicles, and worker training. California courts have recognized the franchise system as an appropriate mechanism to meet the state's 50 percent recycling mandate. After the passage of this mandate in 1989, many cities adopted franchise systems in order to come into compliance. In L.A. County, as many as 55 out of 88 cities have franchise agreements for waste collection.

Through a franchise system with a competitive bidding process, the City can maximize the value of its waste system by increasing recycling, ensuring fairer rates for customers, generating greater City revenue, improving efficiencies, protecting public health and creating more good green jobs. To achieve these goals, requirements for franchisees should include:

- » Recycling for all customers: Franchisees should be required to provide recycling options for all their customers and to improve sorting of materials via an integrated collection and processing plan.
- » Fair rates and services that encourage recycling: Customers should be guaranteed a fair and transparent rate-setting process. The City should be actively involved in rate setting to protect customers from unfair rates and to incentivize recycling. Customers should be able to determine the level of service needed and to lower their bills by reducing waste and increasing recycling.
- » Building a food waste infrastructure: The City should partner with franchisees to expand the City's existing pilot food waste collection program and to build the infrastructure to support increased food waste collection and composting.
- » Designated collection routes: The City should create service areas whereby a franchisee collects materials from all customers within that service area to improve route and economic efficiencies and to ensure all customers have access to services.
- >> Clean collection trucks: Under a competitive franchise system, franchisees would automatically be subject to SCAQMD's Rule 1193 and the City would have the ability to ensure compliance with regional and state truck air quality standards.
- >> Well-trained waste and recycling workers with well-maintained equipment: Workers who collect, sort or dispose of waste and recyclable materials from the City of Los Angeles should be adequately trained and have access to proper equipment to guarantee effective recyclable recovery and the responsible and safe handling of materials.
- » Shared accountability: Through a franchise agreement, the City can partner with companies to meet the City's zero waste goals and to implement a successful commercial recycling program.
- » Increased franchise fees and enforcement: The City should design franchise fees to, at minimum, cover the costs for program management and compliance. Franchise agreements should include penalties for violations of the agreement.

Introduction

Resolving our society's trash problem is one of the major environmental challenges of our time. In Los Angeles County, this crisis has reached urgent proportions. As one of the largest waste markets in the country, Los Angeles County generates 23 million tons of waste and recyclable materials and sends over 10 million tons of waste to landfills each year. Many of the remaining landfills in the county will reach capacity and close in the coming years, and officials project that as early as 2014, we will be making more trash than our landfills can handle.

The City of Los Angeles creates a third of the county's waste that goes to landfills and therefore has a major role to play in addressing this crisis. Recognizing this, the City has set an ambitious and worthy goal of becoming a zero waste city by 2030. However, reaching this goal will be impossible without reforming the dysfunctional and inefficient trash collection and processing system for the City's businesses and large apartment complexes. Many Los Angeles business and apartment tenants have no recycling services or options.

Reforming this system is key to reaching not only the City's recycling goals but also its goal of creating new green jobs in the recycling sector. In the midst of one of the worst economic crises in modern history, the City of Los Angeles' unemployment rate stands at an alarming 14 percent. By raising standards for the waste industry, the City can create good green jobs to put people back to work, bring families out of poverty, and rebuild the local economy.

In this report, we will demonstrate that by accepting a system that is inefficient and lacks adequate standards, the City of Los Angeles is wasting a critical opportunity to improve its environment and economy. By developing a comprehensive waste-flow system to service the commercial and multifamily sectors and, by extension, building its recycling and composting infrastructure, the City can turn materials-now disposed of in a costly and destructive fashion-into a valuable resource. Cities throughout the country use franchise systems-agreements with one or more haulers-to ensure cost-effective services, improve recycling rates and reduce inefficiencies. This report urges the City of Los Angeles to adopt a commercial and multifamily franchise system with a competitive bidding process to select haulers that will partner with the City to improve and increase recycling, decrease our reliance on landfills, create good green jobs and meet clean truck standards along our entire waste flow.



Too Much Waste to Handle

Key Findings

Los Angeles will not meet its environmental goals without dramatically transforming its waste collection system for businesses and large apartment complexes.

- » L.A. County generates 23 million tons of waste and recyclable materials, making it one of the largest waste markets in the country. The County sends over 10 million tons of that waste to landfills each year.
- >> The City of L.A. is responsible for one-third of the waste the County sends to landfills, making it, by far, the County's greatest contributor to landfills.
- >> The largest landfill in the County, Puente Hills Landfill, is set to close in 2013, drastically reducing local landfilling capacity. Under current conditions, there will be a shortage of landfill capacity in the County possibly as soon as 2014.
- » Landfills are major contributors to pollution and climate change. The City of L.A. has set a goal to reduce carbon dioxide emissions by 18.9 million metric tons by 2030, and nearly a quarter of this reduction can be accomplished by achieving "zero waste."

Running Out of Landfill Space

Residents and businesses in the City of Los Angeles send over three million tons of trash to landfills each year. These landfills are filling up and will begin closing their doors as soon as 2013, rapidly reducing the landfill capacity in the region. Landfills are also damaging the environment and, even after closure, require extensive and expensive maintenance. With a population nearing 10 million, Los Angeles County is the largest county in the country and, in turn, one of the largest waste generators in the nation.¹ The Environmental Protection Agency (EPA) estimated that in 2008 the nation produced close to 250 million tons of municipal solid waste and recyclable materials.² That same year, Los Angeles County, one of the largest waste markets in the nation, generated 23 million tons of waste and recyclable materials.³

In 2008, residents and businesses in the County sent 10 million tons of trash to one of 11 in-county landfills, five outof-county landfills and two waste-to-energy facilities.⁴ The Puente Hills Landfill—the County's largest, receiving close to a third of its solid waste and 46 percent of its green waste—is set to close in 2013, drastically reducing available disposal space.⁵ In fact, based on this rapidly diminishing landfill space, the County predicts that if the status quo remains, it will be facing a capacity shortfall as soon as 2014.⁶

The closure of Puente Hills is also projected to raise disposal, or landfill, costs in Los Angeles County. In response to the

inevitable capacity shortage, the Sanitation Districts of Los Angeles County (LACSD) will begin to use trains to transport waste to remote landfills 200 miles east of Los Angeles.⁷ LACSD owns and operates Puente Hills and has traditionally charged haulers lower fees to dump trash than the fees charged by private landfills and landfills operated in surrounding counties. This has helped to contain costs for haulers in the County. In anticipation of Puente Hills' closure and the more costly rail-haul option alternative, those tipping fees have doubled over the past several years and are expected to increase an additional 8 to 15 percent per year until they reach the amount required to operate the rail system.⁸ In turn, other landfills will no longer have to maintain lower rates to compete with Puente Hills, which will likely impact disposal rates throughout the County.



Landfills Damage the Environment

The imperative move toward a zero waste society is motivated not only by the filling up of landfills but also by the destruction landfilling causes to the region's air and water quality. Most of the waste buried in landfills could be recycled or reused: nearly 70 percent of the City of Los Angeles' landfill waste is organic or paper products that could be reused through composting or remanufacturing.⁹ Unfortunately, these organic materials are heading straight to landfills and releasing methane-a greenhouse gas 72 times more potent than carbon dioxide-into the atmosphere.¹⁰ In fact, landfills account for 25 percent of U.S. methane emissions.¹¹ The failure to recover these organic resources also poses a threat to the region's groundwater.¹² Organics often leak liquid, which can become contaminated by the surrounding waste as it makes its way down to the bottom of the landfill. This is commonly referred to as leachate. Attempting to capture small amounts of methane and to prevent leachate from seeping into groundwater is expensive and requires extensive maintenance.¹³ As many of these landfills near closing, at least 30 years of continued maintenance will be required, and it remains to be seen how well current environmental safeguards will weather those years and whether taxpayers will have to foot the bill.¹⁴

"The way we manage our garbage hasn't evolved into the 21st century. We're still burning, burying and otherwise disposing of our trash the same way we did centuries ago. It's time to stop this archaic approach and improve recycling options, eliminating tons of air pollution from our skies and protecting our remaining open spaces from becoming another city dump."

Adrian Martinez, Attorney, Natural Resources Defense Council



Figure 1: Jurisdictions Sending the Most Amount of Waste to Landfills and Incinerators Los Angeles County, 2008

Source: County of Los Angeles Countywide Integrated Waste Management Plan

Zero Waste in the City of L.A.

To mitigate the negative impact of trash on the environment, the County and its 88 cities must remedy their addiction to landfills. Due to its size, the City of Los Angeles is by far the largest contributor in the region, sending over three million tons of waste—a third of what the County sends each year to landfills and incinerators (Figure 1).¹⁵ In fact, the City of Los Angeles discards more waste than the unincorporated county and the next eight cities with the largest disposal amounts, combined.

The amount of waste Los Angeles sends to landfills and incinerators may not be surprising given the size of the City. Yet the City's ability to impact the region underscores the urgency of having Los Angeles take the definitive lead—and the City has recognized this impact. In 2007, the City initiated a process to create a Solid Waste Integrated Resources Plan, a framework to achieve zero waste in the City.¹⁶ In fact, Los Angeles has charged itself with becoming a zero waste city, setting the ambitious goals of a 70 percent recycling rate by 2013, and a 90 percent recycling rate by 2025, ultimately achieving zero waste by 2030.¹⁷ To reduce the amount of waste it sends to landfills, the City has also implemented a number of programs over the past few years. For example, the City started multifamily recycling and food waste collection pilot programs and, in the beginning of 2011, adopted an ordinance requiring that all construction and demolition (C&D) materials generated within city limits be taken to certified mixed C&D processing facilities.¹⁸ C&D customers do not require the same frequency or length of service as businesses and apartment complexes. For this reason, and in light of the recently adopted C&D recycling ordinance, the recommendations in this report do not include the C&D sector.

"Zero Waste means designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that may be a threat to planetary, human, animal or plant health."

Zero Waste International Alliance



Add approximately 5,000 new green jobs in refurbishing, recycling and processing, and remanufacturing to the City's economy.

Source: City of Los Angeles, Solid Waste Integrated Resources Plan, *Policy, Program, and Facility Plan Summary*

Currently, according to City reports, Los Angeles prevents approximately six million tons of materials from heading to landfills, recycling 65 percent of its waste.¹⁹ This is progress to be proud of, but given that the City still delivers over three million tons of waste to landfills each year, it clearly is not enough. Most of the City's landfill waste comes from the commercial and multifamily sectors, which, based on 2006 estimates, generate roughly 70 percent of the waste the City sends to landfills. That amounts to nearly 2.5 million tons each year.²⁰ Adding urgency to addressing Los Angeles' commercial waste stream, the state is in the process of implementing a Mandatory Commercial Recycling Measure as laid out by State Assembly Bill 32, the California Global Warming Solutions Act of 2006. Local jurisdictions will be charged with instituting commercial recycling programs as soon as 2012.21

As the largest waste market in the County, the City of Los Angeles has the opportunity—and the obligation—to lead the way for the region and act as a catalyst for moving toward a zero waste society. Relying on landfill space hundreds of miles away, and creating mountains of trash in the process, comes at an increasingly high environmental and financial cost. As the options for throwing away our trash become more and more remote, we will be shipping out not only our trash but also our jobs, losing a critical opportunity to create vital local economic activity. Comprehensive zero waste policies provide a path for the City to exert robust leadership in reducing the waste-flow system's impact on the environment and to grow the local economy.

Commercial and Multifamily Recycling and Good Green Jobs

Key Findings

- >> The City of L.A. has two different waste systems. The City's Bureau of Sanitation is responsible for collection at single-family and small multifamily dwellings, while the City permits 125 private haulers to collect waste and recyclables from business, large apartment complex and construction customers.
- >> Businesses and large apartment complexes create nearly 70 percent, or 2.5 million tons, of the waste that the City sends to landfills each year.
- >> The current system lacks basic standards for recycling. Many Los Angeles business and apartment tenants have no recycling services.
- » Once waste is collected, the City has virtually no control over where the waste or recycling goes or how it is handled. If recycling sorting facilities do not adhere to high-quality standards, "recycled" materials can end up in a landfill.
- >> For every one job at a landfill, 10 jobs could be created at a recycling sorting facility if that waste were sorted rather than buried.
- » Recycling jobs are lower paying jobs: employees at recycling sorting facilities are paid an estimated \$28,000 annually compared with the estimated \$44,000 paid on average to landfill employees.
- » Proper training and job standards are critical to ensuring that recycling jobs are good green jobs.

Options for Handling L.A.'s Waste

In 1989, "to address the problem created by the relentlessly increasing amounts of solid waste generated by Californians and the exponentially diminishing availability of landfill space for disposal," the California Legislature passed the Integrated Waste Management Act, also known as Assembly Bill 939.²² At the time, California produced more waste per capita than any other state and over 90 percent of the state's solid waste was headed to a landfill.²³ The urgency of this situation led the Legislature to the following findings and declarations as documented in the California Public Resources Code:

The amount of solid waste generated in the state coupled with diminishing landfill space and potential adverse environmental impacts from landfilling constitutes an urgent need for state and local agencies to enact and implement an aggressive new integrated waste management program. The reduction, recycling, or reuse of solid waste generated in the state will, in addition to preserving landfill capacity in California, serve to conserve water, energy, and other natural resources within this state, and to protect the state's environment.²⁴

Treating local governments as partners in addressing the problem, the Legislature granted them the right, and imposed upon them the obligation, to assume responsibility for their own solid waste handling procedures and to prevent, at minimum, 50 percent of solid waste from ending up at landfills or incinerators.²⁵ As a result, many local governments opted for a system with more control over waste handling by structuring franchise agreements with haulers.²⁶ The franchise system is one of a handful of options a local government has for structuring waste and recycling management. Three common structures are (1) a municipally run system, (2) an open market or permit system and (3) a competitive franchise system (see box top right).²⁷

Many cities throughout California and in Los Angeles County have franchise systems. As many as 55 out of the 88 cities in Los Angeles County have franchise agreements for both residential and commercial collection.²⁸ Major West Coast cities are also transitioning to a franchise system. San Jose, for example, recently redesigned its commercial waste collection system, whereby the city is split into two waste collection areas with one hauler collecting waste for each area. San Jose redesigned its system to increase commercial recycling, offer more service options, improve customer service, and reduce vehicle traffic and emissions.²⁹

The City of Los Angeles, however, does not have a franchise system. Rather, the City has two separate systems for waste collection and processing: (1) a City-run system for single-family dwellings and multifamily complexes of four units or less; and (2) a permit system or "open market" for private haulers to pick up waste from businesses, apartment complexes of five units or more and C&D customers.³⁰ The City's Bureau of Sanitation (the Bureau) collects materials from single-family dwellings and small multifamily complexes and disposes of just under one million tons of these materials, contributing roughly 30 percent to what the City sends to landfills each year.³¹

In the permit system, the Bureau provides annual permits to an unlimited number of haulers to collect waste or recycling. Over 70 percent what the City sends to landfills comes from the open market (Figure 2).³² The waste hauler list and numbers change annually. Currently, 125 private haulers are permitted to collect waste and recyclable materials in the City of Los Angeles.³³ To obtain a permit to collect waste or recyclables in Los Angeles, waste haulers must apply annually and submit reports stating their gross receipts for solid waste collection, the number of accounts they service, and to which transfer stations, sorting facilities or landfills waste was delivered. The Bureau began to grant permits to waste haulers in 2002 to collect funds designated for recycling services and programs. Haulers pay the City 10 percent of their self-reported gross receipts for solid waste collection.³⁴

Common Structures for Local Government Waste Management Systems

- » Municipally run system: A municipality provides waste services directly to customers.
- >> Open market or permit system: A city may provide a license or permit for an unlimited number of haulers to collect waste and recycling materials. This system requires less oversight by the city, resulting in less control over waste services. This makes tracking, reporting and ensuring compliance a challenge. Redundant routes lead to higher costs and overlapping trucks, which results in greenhouse gas emissions and wear and tear on city roads. Without set standards, services and rates may be inconsistent and can leave waste companies little incentive to offer recycling.
- Competitive franchise system: A city enters into an agreement with one or more haulers based on specific terms and can attach service requirements and standards. In this system, a city effectively partners with franchisees—and thus has more control over waste and recycling services, making tracking and enforcement less complicated. A city has the ability to set collection routes and rates. With designated routes, waste companies can achieve economies of scale that lead to greater efficiencies. While rate setting can be difficult, proper rate setting can also encourage recycling participation and ensure fair and consistent rates and services for all customers. Performance incentives and standards can easily be included in the franchise agreement.



Figure 2: Tons of Waste Landfilled and Incinerated by Sector, City of Los Angeles, 2006

Permitted private waste haulers collectBureau of Sanitation collects

Source: City of Los Angeles, Fact Sheet: Waste Generation and Disposal Projections

Recycling Access and Standards

To reach its recycling goals, the City will need to address recycling options and quality along the entire waste flow, from collection services, to sorting at processing facilities, to a marketing plan for the sale and remanufacture of the recycled materials. Under the City's current permit system, many business and apartment tenants do not have the option to recycle. Once the waste gets picked up, the City has virtually no control over where the waste or recycling goes or how it is handled. In fact, roughly 50 percent of the City's waste that ends up in a landfill is delivered directly without stopping first at a sorting facility to recover materials that could have been recycled or might have been hazardous to throw into landfills.³⁵ The other 50 percent will first stop at one of over 25 transfer or sorting facilities in the region before reaching the landfills. In 2008, these facilities prevented close to 400,000 tons, or 19 percent of the waste that the facilities received, from going into landfills.³⁶ Achieving successful sorting rates depends on the quality of the materials delivered to the facilities and the degree to which they have been contaminated by food waste or broken glass. If a material is too contaminated, its potential value and reuse are greatly diminished.³⁷

According to the report *Single Stream Recycling Best Practices Implementation Guide*, funded by the California Department of Conservation, to create a successful recycling program, cities must address the processing and marketing of recyclable materials in addition to collection. When materials are poorly sorted and sold to manufacturers, the material will be counted as recycled; however, it may end up in a landfill if it is not of high enough quality to be reused. The report recommends:

In order to ensure an optimally functioning whole recycling system, local governments must provide for recycling services that sustain all parts of the cycle, not just collection. Therefore, in the same way that local governments specify collection service requirements, they should also specify processing and marketing requirements, with input and feedback from the industries that will use the recovered resources in the manufacture of new products.³⁸

In the interest of decreasing its reliance on landfills and increasing recycling, the City must be more deeply involved in the handling of waste and recyclable materials beyond the point of collection. By restructuring its waste and recycling system, the City can require waste haulers to offer recycling services to every business and apartment resident, and to partner with sorting facilities to improve material recovery, thereby increasing recycling and improving the value and quality of recyclables. "For small businesses in L.A., not only is there little incentive to do the right thing and recycle, but there can be extra costs involved if you do. In fact, sometimes you might even have to break the law to do the right thing. This is unfortunate, because adopting green practices, starting with recycling, can significantly improve a business's bottom line."

Leslie VanKeuren Campbell Zero Waste and Sustainability Consultant Sustain LA

Table 1: Job Creation

Recycling vs. Landfilling and Incineration

| Type of operation | Jobs per 10,000 tons per year |
|---------------------------------|----------------------------------|
| Recycling Sorting Facilities | 10 |
| Composting | 4 |
| Landfill & Incineration | 1 |

Source: Institute for Local Self-Reliance



Sonia Murrieta and Iliberto Omaña, Sorters

Iliberto and his wife, Sonia, worked as sorters for two years in the same material recovery facility. When they started work, they received no formal training. They were given their equipment and placed on the line, and they learned as they went.

The facility had a high turnover rate, according to Iliberto and Sonia. There were new workers at the facility every day, and few people lasted over two weeks. Often, they would see new people work for the first part of the day and then quit by lunchtime because of the horrible working conditions—the dust, the smell, the heat, and the constant contact with unpleasant and even dangerous items. On any given day, they handled poisonous chemicals, dead animals, blood or feces, and dirty needles.

They felt "dead" at the end of the workday due to the highly repetitive nature of the work and the speed at which the conveyor belt moves. They learned there was a technique to working at the conveyor belt since the dizziness they felt was caused by the moving belt. With time, everyone who stayed learned not to look directly at the belt. Still, their arms grew numb, and many of their coworkers who had worked there longer complained of back pain or suffered back injuries.





Note: Self-sufficiency standard is for one parent in a dual-income family. Sources: U.S. Census Bureau, 2007 Economic Census; California Budget Project

Good Green Jobs

A well-trained workforce is key to ensuring successful recycling. Workers undertake much of the responsibility, from collecting to sorting, for the safe handling of materials and effective resource recovery. As previously discussed, contaminated materials or ineffective sorting can diminish the quality of materials, making them less valuable and ultimately increasing the amount of waste destined for landfills. For these reasons, well-trained workers equipped with high-quality equipment can increase the value and amount of recyclables.

Improving recycling is also an opportunity to stimulate the local recycling industry and create good green jobs. As local landfills close, more transfer stations and recycling sorting facilities are projected to open up or expand, and these new and expanded facilities can bring new jobs to the City.³⁹ Fortunately, recycling and composting jobs actually provide more job creation potential than landfilling: for every one job at a landfill, 10 jobs could be created at a sorting facility if that waste were recovered rather than buried (Table 1).⁴⁰ In fact, the City of Los Angeles estimates that meeting its zero waste goals would result in approximately 5,000 new jobs.⁴¹

While the recycling industry has greater job potential than landfilling, recycling industry jobs are not of the same quality as landfilling jobs. In the City of Los Angeles, workers at landfills are paid close to an estimated \$44,000, while workers at recycling sorting facilities earn an estimated \$28,000 (Figure 3).⁴² In other words, workers at landfills

"Recycling creates both economic and environmental returns. Cities and regions with successful and wellimplemented recycling and zero waste programs benefit through local job creation, business expansion and revenue."

Monica Wilson U.S. and Canada Program Director GAIA: Global Alliance for Incinerator Alternatives

are paid on average 55 percent more than recycling workers. These estimates are for employees on payroll; thus the pay is probably even lower for both sectors when management salaries are taken out. As a result, recycling workers fall considerably below the self-sufficiency wage in Los Angeles County for one parent in a dual-income family, which is \$37,600.⁴³

If Los Angeles transitions to a zero waste city, it will create new jobs and catalyze new industries. Yet, the recycling and economic opportunities will be wasted if the transition leads to low-quality, low-wage jobs, with inadequate training. Workers play a critical role in ensuring that effective recycling is actually taking place, a role that requires training and experience. At the same time, unemployment rates and the population living in poverty continue to climb to unprecedented levels. The unemployment rate in the County has reached an alarming 13 percent and the City's rate is even higher at 14 percent.⁴⁴ More than 1.56 million people in Los Angeles County lived below the federal poverty threshold in 2009, and over 38 percent of the population lived in economic hardship, when defined as living below twice the federal poverty threshold.45 Becoming a zero waste city represents an extraordinary opportunity for Los Angeles to both protect its environment and bolster its economy. To realize that opportunity, however, the City needs a system servicing its commercial and multifamily waste flow that prioritizes recycling access and focuses on the quality of the recycling processing and jobs that will accompany it.

A Dysfunctional System Costs Customers and the City

Key Findings

- » Overlapping collection routes create environmental and economic inefficiencies.
- » Businesses and large apartment complex customers in the City of L.A. are paying greatly varied rates for the same services. Studies have shown that franchise systems can lead to consistent and even lower rates.
- » The City currently charges a low fee for hauling permits compared to other cities.
- >> According to recent City audits, 10 out of 12 major haulers understated their gross receipts, and the City was owed \$1.3 million. Due to the difficulty of auditing more than a hundred haulers, the City continues to be vulnerable to underpayment.

The permit system is chaotic and inefficient, and it's costing customers and the City. Currently, 125 permitted waste haulers collect millions of tons of waste and recyclable materials from hundreds of thousands of customers each year, using more than 1,000 trucks to deliver those materials to any of over 25 transfer and sorting facilities, nine landfills, and two waste-to-energy facilities.⁴⁶ Without clear routes, collection trucks are servicing the same blocks and overlapping each other's routes. Consequently, waste trucks, ranging in quality, overlap unnecessarily and wear down City streets, costing the City money in road maintenance and contributing to air and noise pollution.

These inefficiencies impact customers, waste haulers and the City. Customers do not have access to consistent recycling services and pay greatly varying rates for the same services—in some cases, exceedingly high rates. Haulers compete for individual customers throughout the city, leading to scattershot accounts and inefficient routes. In some cases, customers may not be getting the lowest rates possible due to the inefficiencies of the overlapping routes.⁴⁷

The City has limited capacity to manage, or even track, the waste stream from 125 private haulers or to verify how much revenue is actually owed to the City. Indeed, in the permit system, the City has little option but to rely on those haulers' self-reporting—in terms of what is actually happening to all of our waste as well as how much revenue is owed.

Rates in L.A. Are Inconsistent and Don't Encourage Recycling

Studies have shown that franchise systems can lead to consistent and even lower rates.⁴⁸ In a franchise system, a city can negotiate rates with a franchise to ensure that fair rate setting is taking place and to encourage and reward recycling. On the other hand, without a franchise system, customers are vulnerable to unfair rates. One analysis of rates in San Jose, prior to its transition to a competitive franchise system, found that "there is both an inequity in the rates charged to customers for the same type of service and an inconsistency in the rates charged by the same hauler."⁴⁹ Similarly, after surveying over 1,800 businesses, the City of Chicago concluded that waste haulers in its open market were charging a "wide disparity for [the] same service even in [the] same area."⁵⁰

LAANE collected waste billing information from multiple commercial waste customers in Los Angeles to examine rates and services. Findings indicate that a similar trend is occurring in the City of Los Angeles. Figure 4 (see page 16) shows rates for four different City of Los Angeles business customers who pay for one three-yard bin to be collected once a week. On the high end, one customer is paying nearly four times more than another customer who, as it happens, is located only three miles away. Moreover, in some cases, the same waste haulers are charging different rates for the same services to different customers in close proximity to one another. In fact, in one instance, the same hauler charges one customer twice as much as another customer in the same neighborhood who is getting the same service.⁵¹

Many cities address these inconsistencies by setting rates in a franchise system. In certain instances, the rate setting has proved to lower waste costs for some businesses. When the village of Skokie in Illinois' northern Cook County switched over to a franchise system, it found that the franchise system lowered solid waste costs for businesses by 40 percent and eliminated inefficiencies.⁵² In an article for *MSW Management*, Brooke Beals, Executive Director of the Solid Waste Agency of Northern Cook County, described the economic benefits of their new franchise system:

Before this, there was really no rhyme or reason to pricing. It was seemingly profit-motivated, which of course makes sense for the private haulers from a business perspective. But what the franchise did was give the small businesses joint purchasing power. It also makes practical sense in having one hauler. Before this, commercial waste collection in Skokie was fragmented, with multiple companies. ... The franchise has basically gotten rid of inefficiencies.⁵³

In a franchise system, cities and companies can also jointly set rates to encourage source reduction and recycling. In fact, the California Legislature requires cities and counties to evaluate rate structures for this purpose.⁵⁴ Only under franchise or contract arrangements can local governments actually set rates, something they cannot do in open market systems. In addition to rewarding recycling, cities can protect customers from unfair rates by publicly evaluating any requests for rate changes or increases.

Unrealized Revenue

The lack of control in the waste system has a series of costs beyond the failure to effectively recycle. First and foremost, the City is costing itself badly needed revenue. Due to the number of haulers and the resulting lack of City capacity to verify reporting of hauler receipts, the City is vulnerable to haulers underreporting what they owe the City. The City must rely on the haulers to self-report the number of accounts and the gross receipts from those accounts or take the time and expense to audit these haulers. After starting the permit program in 2002, the City commissioned a third-party audit of 12 major haulers and their reporting over the first few years of the program between 2002 and 2005. The audits revealed that 10 out of the 12 haulers had understated their gross receipts and found that the City was owed \$1.3 million.⁵⁵



Figure 4: Monthly Rates for Four Customers with Three-Yard Bins Collected Once a Week City of Los Angeles, 2010

Source: LAANE Customer Interviews

Table 2: San Jose and Los Angeles Commercial Waste Markets

| | Annual Tons Landfilled and Incinerated | Annual City Revenue |
|-------------|---|------------------------|
| San Jose | 250,000 | \$15.2 Million |
| Los Angeles | 2.5 Million | \$17.3 Million |

Sources: City of San Jose; L.A. Permitted Hauler Reports, City of Los Angeles, *Fact Sheet: Waste Generation and Disposal Projections*

Without a system for verifying the reported receipts and tonnage collected, and as proven by past audits, the City is vulnerable to underpayment when relying on selfreporting from such an unwieldy number of companies.

At the same time, the City is missing opportunities to receive more revenue by increasing recycling, cutting costs and raising franchise fees. As landfills close and disposal becomes more expensive, recycling will become a better fiscal option for both the City and private haulers. To illustrate, in the residential sector, the City receives \$25 per ton in revenue from selling recyclable materials compared with costing itself \$30 per ton disposed.⁵⁶ Under a franchise system, haulers can earn more revenue from the improved quality and steady stream of recyclables as well as the guaranteed market share, which in turn can translate into more revenue for the City and better rates for customers. The City can also save money it currently spends on recycling programs by building a franchise system that includes recycling services. Because large apartment complexes have particularly low recycling participation, the City spends close to \$9 million a year for contracted haulers to pick up the recyclable materials from participating complexes.⁵⁷ If franchisees were required to offer recycling services, this program would be unnecessary and the City could save this money.

Finally, Los Angeles is charging too little for the opportunity to collect, sort and sell materials in its market. In comparison,

businesses in San Jose send approximately 250,000 tons of waste to landfills each year—one-tenth the amount of Los Angeles' commercial and multifamily sectors—yet San Jose receives approximately \$15.2 million in revenue from haulers, only \$2 million less than the \$17.3 million that Los Angeles collects for its much larger commercial and multifamily market (Table 2).⁵⁸

Facing a \$485 million budget deficit, the City can ill afford to overlook a policy shift with the potential to increase revenue.⁵⁹ With a franchise system, the City would have the ability to structure fair rates that incentivize recycling and to establish designated routes that improve environmental and economic efficiencies. Under such a system, companies can achieve economies of scale and benefit from the guaranteed market share for the term of the contract. In turn, those savings can be invested in customers through lower rates, higher franchise fees or improved services and standards.

All in all, the permit system is costing customers and the City a steep price. To reach its recycling, environmental and economic goals, the City will need to build partnerships with companies, improving efficiencies and raising standards. Absent a comprehensive system that reflects the interaction of each step of our waste-flow system, those efficiencies and standards cannot be realized—and the City's commercial and multifamily waste sectors will continue to be a race to the bottom.

Dirty Trucks Pollute L.A. Air and Neighborhoods

Key Findings

- » Because the City of L.A. operates an open market, haulers are not subject to regional solid waste collection truck emissions standards, which only apply to haulers with City franchise or contract agreements.
- » Private waste haulers with business in the City of L.A. are responsible for almost all major statewide violations of the Air Resources Board's diesel engine standards for solid waste collection vehicles reported over the past two years.
- >> An average garbage truck travels 25,000 miles annually and gets less than three miles per gallon, using approximately 8,600 gallons of fuel each year. The City of L.A. has 1,115 reported trucks in use, leading to as many as 28 million vehicle miles traveled.

The Los Angeles region is one of the most polluted air basins in the country.⁶⁰ Failing to meet federal clean air standards in Los Angeles County creates pollution-related health impacts that cost over \$12.3 billion.⁶¹ The trucks, buses and cars that clog our streets and highways are the main contributors to smog and air pollution; vehicles and other mobile sources are responsible for more than 75 percent of the area's smog problem.⁶² There are approximately 12,000 diesel-fueled solid waste collection trucks in California.⁶³ To reduce health-damaging toxic diesel emissions from these trucks, cities and waste companies began some years ago to transition their fleets to cleaner technologies, such as natural gas vehicles, which have proven to significantly reduce air, noise and water pollution.⁶⁴

Moving Toward Clean Trucks

The City of Los Angeles operates a model clean truck fleet that collects waste and recyclable materials from single-family and small multifamily dwellings. Meanwhile, waste haulers servicing Los Angeles businesses and large apartment complexes are not subject to regional air quality standards and are some of the biggest violators of state standards. The Solid Waste Association of North America (SWANA) recently awarded the City a Gold Excellence Award for its Clean Fuel Program. Under this program, the City has committed to convert its fleet of 770 collection trucks from diesel-powered to clean-burning naturalgas-powered. With more than 400 natural-gas-powered collection trucks, the City has the largest municipal clean-fuel fleet in the nation. $^{\rm 65}$

Private fleets in Southern California, on the other hand, are often diesel trucks and typically older than public fleet vehicles. The South Coast Air Quality Management District (SCAQMD)-the air pollution control agency for the urban portions of Los Angeles and Riverside counties and all of Orange County-surveyed the region's waste trucks and estimated that privately owned trucks make up 75 percent of the 5,600 collection trucks operating in SCAQMD and 75 percent of those private trucks are diesel trucks.⁶⁶ SCAQMD has estimated that governments replace their fleets approximately every seven years, while private companies typically replace their fleets every 15 to 22 years.⁶⁷ Because collection trucks stop and go so often, they may have fuel efficiencies as low as three miles per gallon. An average waste collection truck travels 25,000 miles annually and uses approximately 8,600 gallons of fuel each year.68 In Los Angeles, waste haulers reported 1,115 trucks collecting waste and recyclables. Based on these estimates, collection trucks are on the Los Angeles roads for as many as 28 million vehicle miles each year.69 Unfortunately, the number of companies voluntarily making the transition from diesel to cleaner technologies remains small, forcing state and local agencies to devise strategies for facilitating the transition away from dirty diesel trucks to alternative-fuel trucks.

Don't Waste L.A.

No Franchise, No Compliance

As the urgency for this transition—especially for private fleets—became increasingly clear, state and local air quality agencies passed new regulations mandating the transition to cleaner emission technologies. On the state level, the California Air Resources Board (CARB) implemented the Solid Waste Collection Vehicle (SWCV) Rule to reduce cancer-causing particulate matter and smog-forming nitrogen oxide emissions.⁷⁰ The SWCV Rule requires all owners to clean up their vehicles using CARBverified diesel emission control strategies.⁷¹ Regionally, SCAQMD further raised standards when it passed Rule 1193 requiring solid waste collection vehicles to transition to cleaner-burning or alternative-fuel technologies.⁷²

However, haulers servicing Los Angeles under its permit system are not subject to Rule 1193, because it applies only to trucks that provide services under direct contract or franchise.⁷³ To make matters worse, these haulers are some of the leading culprits in CARB's major noncompliance cases. Private waste haulers with business in Los Angeles are responsible for eight out of 10 of CARB's major solid

"SCAQMD's Rule 1193 was meant to reduce toxic diesel emissions from dirty waste hauling trucks—some of the region's biggest polluters. Unfortunately, though, because of the City of Los Angeles' current system, its commercial and multifamily haulers aren't covered by the Rule. As a result, trash haulers in the region could end up using clean trucks to pick up in other cities, while using their dirty trucks to service the City of L.A."

Luis R. Cabrales Deputy Director of Campaigns Coalition for Clean Air



Alex Salgado, Solid Waste Hauler

"Outside the cab where you're picking up loads, you inhale the fumes coming from the pipes of the truck. Inside the cab, the fumes get in too—and you're trapped with it. Sometimes the fumes are so strong it makes your eyes water and your throat burn. If you breathe in too much at once, you feel kind of dizzy and you get a headache."

waste vehicle enforcement cases reported in the past two years for the entire state. Several of the cases, which involved fines ranging from \$13,500 to \$500,000, were because waste haulers failed to install emission reduction devices, as they are legally required to do under the SWCV Rule.⁷⁴

The permit system and the lack of truck standards are hindering the City's efforts to clean its air. Waste haulers in Los Angeles are exempt from SCAQMD's Rule 1193 and experience no real consequence from the City for failing to comply with CARB's SWCV Rule. In contrast, a franchise system would allow for application and enforcement of both Rule 1193 and CARB's SWCV Rule. Compliance with those rules could be included as part of a franchise agreement, allowing for real consequences for noncompliance.

Although a national model for its own alternative-fuel collection vehicles, the City does not require the same environmental standards for private haulers in its much larger commercial market. The City should do everything in its power to reduce air pollution, including choosing to manage waste and recycling collection through a franchise system. With a commercial and multifamily franchise system, haulers will no longer be off the hook for meeting the most aggressive regional standards, and the City will have the means to enforce greater compliance.

A Dangerous Industry

Key Findings

- » The State of California has deemed the waste industry one of California's most hazardous industries for workers.
- >> Workers in the waste industry have one of the highest injury and illness rates in California, impacting their ability to work at over twice the rate of private industry overall.
- » Waste collectors face fatality rates similar to those of police officers and firefighters.

Waste is a dangerous industry for its employees and the environment. The waste industry is so dangerous that it has made the California Division of Occupational Safety and Health's (Cal/OSHA) Highest Hazard Industry list.⁷⁵ The industry has found itself on this undesirable list, year after year, due to the high incidence of preventable occupational injuries and illnesses of its workers.⁷⁶ In 2008, waste workers reported 2,000 cases of work-related injuries and illnesses that impacted their ability to work to such a degree that it resulted in days away from work, restricted work activities or having to transfer jobs.⁷⁷ Waste workers experienced injuries or illnesses that impacted their ability to work at twice the rate (4.6) of private industry overall (2.2).⁷⁸ In fact, California waste industry workers face injuries and illnesses that impact their ability to work at a rate greater than that for most major private industry categories, including manufacturing and construction (Figure 5).⁷⁹



Figure 5: Work-Related Injury Rates by Industry, California, 2008

Note: Injury rates are for cases resulting in days away from work, restricted work or transfers (DART rate). Rates represent the number of injuries and illnesses per 100 full-time employees at 40 hours per week, 50 weeks per year. Source: Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses

High Fatality Rates

Sometimes these work-related injuries are so severe that they result in fatalities. Many of the fatalities in the waste industry are transportation incidents; in fact, for the past three years, over half of fatalities nationally for waste workers were transportation incidents.⁸⁰ Workers driving collection trucks or jumping on and off the trucks to collect bins are especially vulnerable to injuries and fatalities. As shown in Figure 6, the fatality rate for waste collectors is high, on par with police officers and higher than firefighters, and remains over four times greater than the fatality rate for all occupations in the nation.⁸¹

Hazardous Working Conditions

Waste collectors are not the only workers vulnerable to hazardous working conditions; recycling jobs can also be dangerous jobs. Workers report that, as sorters, they are regularly exposed to hazardous and unsafe materials in the waste stream. Waste and recyclable materials move through sorting machines and onto conveyor belts at a rapid pace while workers move quickly to collect and remove an assigned material, such as plastic or aluminum.

Government investigators have repeatedly found that waste workers have had to use unsafe equipment.⁸² In 2006, OSHA investigated an accident at a sorting facility in Sun Valley after a material sorter got caught in a rotating tumbler. In this instance, refuse became embedded in the tumbler screen and an employee entered the tumbler to clean it out. The supervisor, without realizing the employee was still inside, turned the machine on, causing the employee to lose his footing. Tumbling inside, the employee screamed for help. By the time a coworker stopped the machine, the sorter was bleeding and in pain, having suffered from strains and contusions. He ended up in a hospital for five days. The investigation concluded that the waste company did not have the necessary safety precautions in place, specifically a lockout/tagout program so that only the employee who stops the machine can start it back up.83

The waste and recycling industry is dangerous for its workers and for our environment. As previously discussed, workers are integral to the City's reaching its zero waste goals: experience and effective training is fundamental to ensuring the quality and effectiveness of our recycling. As important, given the extreme hazards of waste sector jobs, experience, training and effective and well-maintained machinery will also ensure that our waste is being handled responsibly and safely. Proper training, effective machinery and decent job standards not only can improve recycling quality and quantity, but can also protect the public and workers from a dirty and dangerous industry.



Hector Ramirez, Solid Waste Hauler

"At one company, it didn't matter what condition the trucks were in, we would still take them out on route. There were times when oil would be leaking from the trucks and we were given extra oil to keep refilling it throughout the day. The tires would be bald and we would still have to take the truck out."

Figure 6: Fatalities per 100,000 Employees by Occupation, United States, 2009



Sources: Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2009; May 2009 National Occupational Employment and Wage Estimates, United States



Policy Recommendations

Historically, communities have taken the all-too-easy path of throwing out waste and expanding landfills. As this wasteful habit becomes more expensive and the environmental damage more obvious, recycling becomes both an imperative and an opportunity. The City has an opportunity to maximize revenue and redefine waste as a resource with economic value. Improving recycling and reducing reliance on landfills will help the City reach its environmental and economic goals by reducing greenhouse gas emissions and creating new green jobs. Yet the current system for collecting waste and recyclables from commercial and multifamily customers is preventing the City from reaching these goals because the system is dysfunctional, inefficient and lacks standards for recycling, truck emissions and good green jobs.

The City of Los Angeles should use a competitive bidding process to select haulers to service commercial and multifamily customers as part of a combined franchise system that will increase efficiency and improve oversight.

- » Shared accountability: Franchisees should be required to develop a plan, and be held accountable, for meeting the City's established zero waste goals.
- Designated collection routes: The City should create service areas by geography and assign them to franchisees. A franchisee should collect materials from all customers within that service area to improve route and economic efficiencies and to ensure all customers have access to services.
- » Fair rates and services that encourage recycling: Customers should be guaranteed a fair and transparent rate-setting process so that all customers in a waste service area pay the same amount based on service level. The City should be actively involved in rate setting to protect customers from unfair rates and to incentivize recycling. Small businesses, without the capacity to survey the market or negotiate as favorable a rate as large companies, should be able to count on fair and consistent costs.

- Increased franchise fee and enforcement: The City should design franchise fees to, at a minimum, cover the costs for program management and compliance. The franchise agreement will allow for easier tracking and compliance and should include damages for violations of the agreement.
- >> Clean collection trucks: The City should require compliance with CARB and SCAQMD rules as part of the franchise agreements, and impose penalties on franchisees for failing to comply.

The City should design a system that incentivizes and maximizes recycling and waste reduction at the source through rate setting, access to recycling bins, and increased sorting at facilities.

- » Recycling for all customers: Franchisees should be required to provide recycling options for all their customers and to verify sorting of materials via an integrated collection and processing plan.
- » Building a food waste infrastructure: The City should partner with franchisees to develop the infrastructure to support increased food waste collection and composting.
- >> Well-trained waste and recycling workers with wellmaintained equipment: Workers who collect, sort or dispose of waste and recyclable materials from the City of Los Angeles should be adequately trained and equipped with safe and well-maintained trucks and machinery to ensure effective sorting of materials.

The waste and recycling industry offers Los Angeles an opportunity to turn its trash into a productive resource for the environment and the economy. To successfully realize these goals, the City must restructure its waste and recycling system for the commercial and multifamily sectors. Through this restructured system, Los Angeles can significantly enhance recycling, improve its air quality and help rebuild its economy for a better, greener future.

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