

Los Angeles County

# ZERO WASTE

Plan







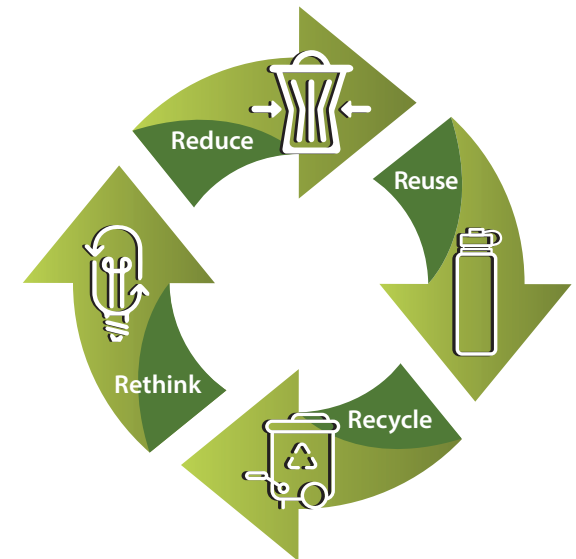


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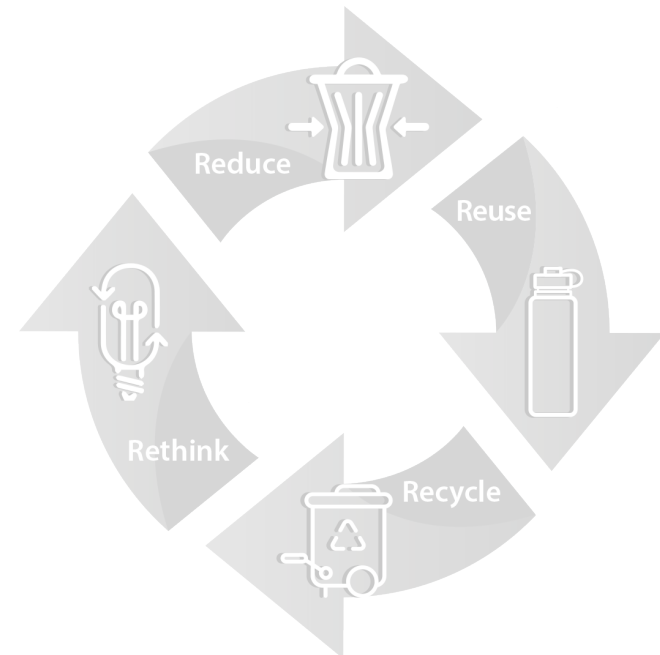






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# EXECUTIVE SUMMARY







## Introduction

Los Angeles County is seeking to establish a sustainable waste management system by shifting to a circular economy. This zero waste plan identifies the programs and policies needed to achieve ambitious zero waste targets and shift away from a reliance on limited landfill capacity for disposal of solid waste. These environmental programs and policies help the County maximize the reuse of natural resources and recover materials to beneficial uses. Additional benefits of implementing these current and new waste management strategies and programs include creating and sustaining healthy communities; assisting people experiencing homelessness by providing food and convenient waste disposal; and maximizing the use of materials within local communities.

Since its adoption in October 2014 by the Los Angeles County Board of Supervisors, the County's "Roadmap to a Sustainable Waste Management Future" (Roadmap) has guided the County to create and implement the strategies and supporting initiatives to achieve its landfill diversion goals of 80 percent by 2025, 90 percent by 2035, and 95+ percent by 2045, while focusing on the environmental, economic, and social impacts of programs on behalf of County residents and communities. Since 2014, there have been new laws passed and major changes in the recycling markets, including China's National Sword Policy. This guided the County to update this planning document now referred to as the Los Angeles County Zero Waste Plan (Zero Waste Plan).

The County conducted comprehensive stakeholder and community engagement through meetings to share the need for updating the Roadmap. During these meetings, the County presented the Zero Waste Plan draft and provided an opportunity for stakeholders and County residents to ask questions and to provide feedback during and after meetings that were held between December 2019 and August 2020. Public Works will periodically update the Zero Waste Plan with stakeholder input to ensure it is aligned with State and County waste management policies and related changes in the solid waste management industry to achieve the Zero Waste Plan's established disposal reduction targets.

The County strives to lead by example by developing creative and innovative waste diversion programs to ensure that the environmental justice mandates of clean air, clean water, and pollution-free communities for everyone are a part of County residents' daily life experience regardless of their race, color, national origin, economic status, or where they reside in the County. The County has joined forces with local jurisdictions and residents to develop programs to address community blight caused by the illegal dumping of trash and bulky items by residents, visitors and people experiencing homelessness. The County will work to develop community-centered sustainability programs to address the specific waste management challenges, needs, and goals of County communities in an equitable manner.



The County has made progress towards its goals, including:

- Emphasizing source reduction by educating residents and businesses on practices that they can do to reduce their overall waste generation.
- Advocating for statewide and local extended producer responsibility legislation and policies.
- Educating residents, businesses, schools, and County facilities on ways to reduce, reuse, recycle, and rethink.
- Facilitating proper management of household hazardous waste (HHW) and electronic waste (E-Waste).
- Administering local green business and market development programs.
- Implementing organic waste management plans and programs.
- Advocating for development of conversion technology projects.
- Planning for emergency debris management.

## Alignment with Current County Priorities

The strategies and initiatives identified in the Zero Waste Plan align closely with the County's adopted plans and priorities, as well as other sustainability efforts, including:

- Los Angeles County Countywide Siting Element
- Los Angeles County Strategic Plan
- Los Angeles County General Plan 2035
- OurCounty: The Los Angeles County Sustainability Plan
- Los Angeles County Community Climate Action Plan 2020

## Priority Issues

The Zero Waste Plan reflects changes in the waste management industry. It focuses on reducing greenhouse gas (GHG) emissions, new recycling laws and mandates, responds to the impacts on recycling markets created by China's National Sword Policy, and promotes the development of new and expanded sustainable waste management infrastructure in Los Angeles County.





Certain issues are a major focus of the Zero Waste Plan due to the proportion of the waste stream potentially affected or the impacts those issues have on sustainability and the quality of life of residents in the County. The Zero Waste Plan also includes new priorities, to address social justice concerns such as environmental equity.

These priorities were taken into consideration when developing waste diversion strategies and initiatives.

The priorities (in order of focus) of the Zero Waste Plan include:

- Waste Prevention and Source Reduction
- Extended Producer Responsibility and Product Stewardship
- Construction and Demolition Debris
- Household Hazardous Waste and Electronic Waste
- Environmental Justice\*
- Community Engagement/Outreach and Education
- Local Recycling Infrastructure and Market Development
- Organic Waste Management
- Conversion Technologies
- Illegal Dumping\*
- Homelessness\*
- Emergency Management and Regional Debris Management Planning

\*Indicates a new priority added to the Zero Waste Plan

## Focus Areas

The County's solid waste management responsibilities include oversight for disposal capacity, regional diversion programs, waste collection and diversion programs specific to County Unincorporated Communities (CUCs), and waste collection and diversion programs at County facilities. Therefore, the Zero Waste Plan is divided into the following focus areas:

1. Regional/Countywide
2. County Unincorporated Communities
3. County Operations.



# Strategies and Initiatives

The Zero Waste Plan includes three strategies with supporting initiatives to reduce waste and divert material from landfills. The three strategies are:

Strategy 1: Programs and Services

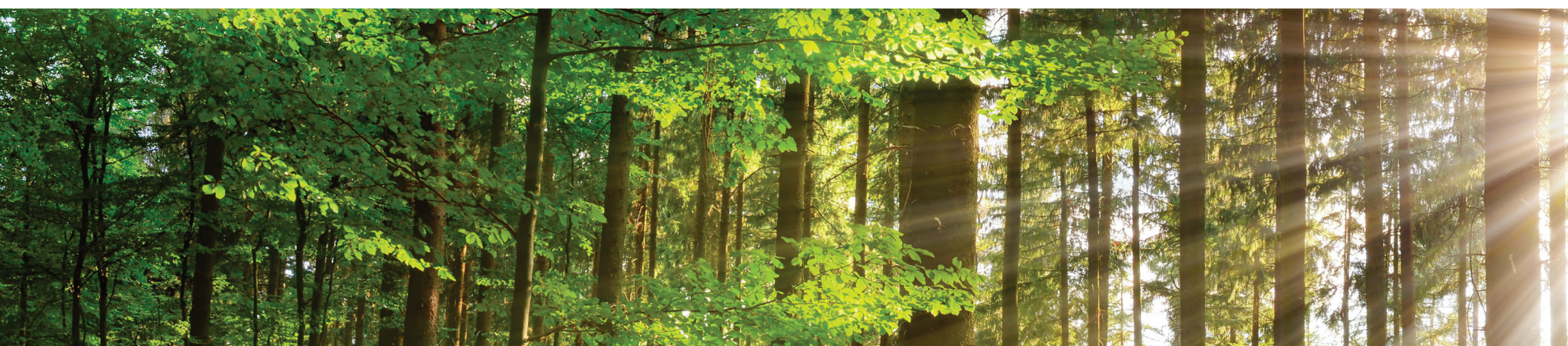
Strategy 2: Measuring Results

Strategy 3: Facilities and Infrastructure

Within each strategy are specific recommended initiatives that include a mix of “upstream” activities that identify ways to keep materials out of the waste stream entirely and “downstream” activities that sustainably manage materials that are currently being disposed of at landfills.

## Conclusions and Next Steps

The Zero Waste Plan is intended to outline a recommended approach to establishing a sustainable waste management future, while more detailed implementation plans will be developed for various initiatives, which will incorporate specific details on feasibility, costs, funding sources, and timelines/schedules. The Zero Waste Plan is intended to be a resource for residents, businesses, cities, County departments, public agencies, the waste industry, environmental organizations, and other interested stakeholders who want to help make the County a greener and more sustainable community, particularly in the area of solid waste management.









# BACKGROUND





Managing solid waste in a sustainable manner is very important to protect public health and the environment. Waste collection, material processing, and ultimate recovery or disposal are the major components of a sustainable waste management system. Improperly disposed waste can harm the environment and negatively impacts communities' quality of life. There is limited capacity in landfills for disposal, so it is crucial that we reduce the amount of waste we generate. Waste breaks down in landfills and creates harmful greenhouse gases such as methane and carbon dioxide. While landfills have gas collection systems, they are unable to capture all the gases causing some of these gases to enter our atmosphere and contribute to global warming. It is very important that we reuse and recover materials and products to the maximum extent possible to save natural resources and combat climate change.

Assembly Bill (AB) 939 (1989) mandates cities and counties to divert 50 percent of their solid waste from landfills. AB 341 (2011) established a statewide goal that at least 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020. Senate Bill (SB) 1383 (2016) established statewide goals to reduce the amount of organic waste disposed in landfills by 50 percent by year 2020 and by 75 percent by year 2025.

In 2019, Governor Newsom signed into law Assembly Bill 1583 that required CalRecycle to convene the Statewide Commission on Recycling Markets and Curbside Recycling that consisted of representatives of public agencies, private solid waste enterprises, and environmental organizations that have expertise in recycling to develop feasible and creative solutions to address the State of California's waste diversion challenges. In June 2021, the Commission on Recycling Markets and Curbside Recycling submitted a report to the State legislature comprised of policy proposals to address challenging waste reduction topics that are important to jurisdictions within the State of California to manage packaging materials, develop sustainable recycling markets to close the loop, and expand in-state organic materials infrastructure to comply with the State of California's organic waste diversion mandates. Many of the policy proposals from the commission were taken up by the legislature and resulted in new State laws in 2021 and more are expected to be considered in the coming years.

Aligned with the State's waste reduction goals, the County created the original Roadmap to a Sustainable Waste Management Future in 2014, which established the goals of 80 percent diversion from landfill disposal by 2025, 90 percent diversion by 2035, and 95+ percent diversion by 2045. The Roadmap laid out the general framework for implementing strategies to meet these goals.

While the County has spent considerable effort to achieve these goals, there are challenges, including the COVID-19 pandemic, which significantly impacted solid waste management. Los Angeles County and the Southern California region lacks adequate infrastructure to properly process and manage solid waste in order to achieve these ambitious waste diversion goals. Sustainable funding to support the infrastructure improvements and waste diversion programs is another significant challenge. There are global impacts such as China's National Sword Policy that not only affect Los Angeles County's waste diversion goals but impact the entire United States and many other countries.



# China's National Sword Policy

For many years, countries around the world; including the majority of the United States, the State of California, and Los Angeles County; have heavily relied on China for purchasing recovered recyclable materials such as mixed paper and mixed plastics. In 2017, China announced its National Sword Policy, a policy which banned importing certain materials and established a very stringent contamination standard (0.05 percent) that requires upgraded processing infrastructure and effort to achieve. The policy caused major repercussions not only for the United States but the rest of the world. After China stopped accepting recyclable materials many other Asian countries, including Malaysia and the Philippines, implemented similar policies restricting the import of recyclable materials.

To address these new challenges and legislative State mandates for reducing waste, the Roadmap has been updated, herein referred to as the Los Angeles County Zero Waste Plan (Zero Waste Plan).

## Stakeholder and Community Engagement

The County hosted three meetings between December 2019 and April 2020 to engage stakeholders and discuss topics such as the impact of China's National Sword Policy on the recyclables market and new State mandates for organic waste collection.

Stakeholders included representatives from cities, County departments, waste haulers and facility operators, environmental advocates, and community groups.

Additionally, the County hosted three virtual community meetings in August 2020 to further educate the general public on the importance of sustainable waste management and the County's efforts in developing the Zero Waste Plan. These meetings were advertised in newspapers as well as on CleanLA website and social media platforms (Twitter, Public Works Twitter, Instagram, and Facebook).








## Key Progress Towards Sustainability Goals

The Zero Waste Plan along with the original Roadmap embraces the three major components of sustainability: the environment, economy, and equity. The County has made progress towards its sustainability goals, including:

- Emphasizing source reduction by educating residents and businesses on practices that they can do to reduce their overall waste generation:
  - The County developed a Waste-Free Event Guide to promote zero waste practices at various events. This guide has been made available on the County's website.
- Implementing ordinances to limit certain materials:
  - On June 8, 2021, Single-Use Foodware Accessories Upon Request Ordinance was adopted. This ordinance renamed the Straws and Stirrers Upon Request Ordinance and expanded it to include cutlery, napkins, chopsticks, condiments, beverage sleeves and lids, and non-plastic straws and stirrers.
- Advocating for statewide and local extended producer responsibility legislation and policies:
  - The County advocated for the passage of SB 212, which was signed into law in 2018. This law will establish a Statewide Extended Producer Responsibility Program for take-back programs for pharmaceutical and sharps waste.
- Educating residents, businesses, schools, and County facilities on ways to reduce, reuse, recycle, and rethink:
  - The Bring Your Own (BYO) campaign educates residents and County employees on how to implement sustainable practices by encouraging the use of reusable items.
  - The County conducts outreach and education to residents, businesses, and County departments to encourage the Four Rs (Reduce, Reuse, Recycle, and Rethink).
  - Through the Smart Gardening Program, workshops/webinars, such as composting, water-wise gardening, and grasscycling, are provided to County residents at no cost.
  - The County works with schools through the Environmental Defenders and Generation Earth Programs to offer environmental education through a school assembly presentation and service-learning projects on school campuses.

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- Since 2016, 26 County facilities have been visited by Public Works to identify sources of waste throughout facility operations and provide recommendations to eliminate, reduce, or divert generated waste from landfill disposal.
  - In 2017, the County launched the Scrape Your Plate Program at Public Works Headquarters building in Alhambra, California to divert employee food waste from landfills through an organic waste collection program where the material was sent to an anaerobic digester. The Scrape Your Plate Program has received multiple awards, including from the United States Environmental Protection Agency, the California State Association of Counties, and the County's Quality and Productivity Commission. Through this program, more than 42,000 pounds of food waste from the Headquarters' cafeteria, breakrooms, and special events, as well as special events at Public Works' field facilities, have been collected and converted to energy and renewable transportation fuel through anaerobic digestion. As of July 2021, the Commercial Food Waste Collection Pilot Program has successfully diverted over 2825 tons of food waste.
  - Over 5,000 pounds of food waste have been composted in on-site worm bins to create a soil amendment that is used to grow food and other plants at Public Works Headquarters. In addition, over 800 pounds of food waste have been prevented through improved planning by the cafeteria kitchen staff. The County plans to expand these food waste diversion programs to other County facilities. In 2018, County Internal Services Department added a new category of contract waste hauling service requiring haulers to offer organic waste and recyclables collection service and visit customer County facilities to make recommendations for complying with latest State laws regarding organic waste collection.
  - Facilitating proper management of HHW and E-waste:
    - The County continues to operate an award winning HHW/E-waste collection program consisting of permanent collection centers and mobile collections events and is working to develop reuse centers.
  - Encouraging proper disposal of waste for people experiencing homelessness (PEH):
    - Public Works initiated a Dumpster Pilot Program in 2019 to provide waste collection service for PEH who are living in vehicles or in homeless encampments in County Unincorporated Communities. As of October 2021, nearly 400 tons of waste have been collected through the program. This program has proven successful in improving the quality of life of those in the encampments and the surrounding communities.



- Administering the local green business and Recycling Market Development Zone (RMDZ) program, which provides business and technical assistance, product marketing, and financial assistance to businesses that manufacture a recycled-content product or process materials for recycling.
  - Two RMDZ loans were processed for rPlanet Earth, a Polyethylene Terephthalate plastic recycler and manufacturer, for \$2 million each in 2017 and 2018.
  - An RMDZ loan was processed for Princess Paper, Inc., a paper manufacturer, for \$1,925,000 in 2018.
  - An RMDZ loan was processed for U.S. Corrugated, Inc., a cardboard recycler and manufacturer, for \$2 million in 2015.
  - An online marketing campaign ran from April 15, 2021 through April 30, 2021, reaching more than 440,000 unique viewers to promote RMDZ.
- Reaching a diversion rate of 65 percent:
  - The diversion rate reached a high of 75 percent in the CUCs in 2016 where the County implemented a vast array of waste reduction, recycling, and public education programs.
  - In recent years, the diversion rate has declined (i.e., disposal has increased), due largely to strong economic activity in the CUCs and the significant impact to recycling markets caused by China's National Sword Policy.
  - These changes in market conditions, along with new legislative mandates and alignment with other County plans have impacted diversion rates and have been the key drivers for updating the Roadmap.
- Implementing organic waste management plans and programs:
  - In 2015, the County began developing a food donation and recovery program. The Food Donation and Recovery Outreach Program (Food DROP) facilitates and promotes the safe donation and distribution of excess edible food to reduce food waste and helps address food insecurity. The Food DROP launched in 2018 and has received multiple awards, including from the California State Association of Counties and the County's Quality and Productivity Commission.







- The County has been amending existing waste collection contracts and developing new contracts to include mandatory organic waste collection service to all residents and businesses. The County also prepared an Organic Waste Disposal Reduction Ordinance adopted by the Board of Supervisors in November 2021 to ensure the organic waste collection service is being utilized.
- The Sustainable Waste and Recycling Management (SWARM) subcommittee was developed under the Infrastructure LA Workgroup to further develop regional waste management collaboration in Los Angeles County. The first SWARM subcommittee meeting was held in May 2020 and included representatives from over half of the cities in the County. The committee meets on a quarterly basis to discuss issues related to solid waste infrastructure and SB 1383 implementation.
- Public Works presented at various San Gabriel Valley Council of Governments' meetings to educate and assist cities with implementation of SB 1383 requirements. Public Works provided Food DROP resources and updates on our approach in conducting a Countywide edible food recovery capacity assessment. In addition, Public Works presented on capacity planning for organic waste processing infrastructure and efforts to promote regional infrastructure development.
- Advocating for development of conversion technology projects:
  - In 2016, the County launched the Commercial Food Waste Collection Pilot Program in partnership with the Los Angeles County Sanitation Districts (CSD) where source separated food waste is collected from businesses that is taken to CSD's facility that converts food waste into energy and renewable transportation fuel through anaerobic digestion. As of July 2021, the Commercial Food Waste Collection Pilot Program has successfully diverted over 2825 tons of food waste.



- Planning for emergency debris management:
  - The County prepared a Countywide Operational Area (OA) Mass Debris Management Plan (MDMP), which was approved and adopted by the County of Los Angeles Emergency Management Council. The OA MDMP establishes roles and responsibilities, determines resources, assesses operational threats and vulnerabilities, establishes mechanisms for collaboration, and prioritizes debris management efforts covering all 88 cities and CUCs.
  - The County also prepared a separate Unincorporated Area (UA) MDMP for the management of disaster debris within CUCs in 2017. The UA MDMP was submitted to the California Governor's Office of Emergency Services (CalOES) for review. Comments were received shortly prior to the 2018 Woolsey Fire, a destructive wildfire, which affected 1,769 properties and 96,949 acres of land in Los Angeles and Ventura Counties. In addition to addressing comments from CalOES, the County is currently preparing a Private Property Debris Removal Addendum to the UA MDMP based on lessons learned from the County's debris removal response during the 2018 Woolsey Fire incident. The UA MDMP will be resubmitted to CalOES with the Private Property Debris Removal Addendum for review and comment prior to subsequent submittal to the Federal Emergency Management Agency.





# OUR SUSTAINABLE WASTE MANAGEMENT FUTURE





To achieve a sustainable waste management future, it is important to understand the terms “sustainable” and “waste”. Sustainability is generally understood as meeting current needs without compromising the ability of future generations to meet their own needs. To be sustainable, we aim to enhance the well-being of every community in the County while reducing impacts to the environment and adapting to the changing climate. Waste refers to a material, substance, or byproduct that is typically discarded after use. However, a lot of this waste can be prevented, recovered, or recycled into new products or energy. The three aspects of sustainability, as defined in OurCounty, are Environment, Economy, and Equity (i.e., Society), which are shown in Figure 1. Another way to express this concept is maintaining good care of people, planet, and prosperity in perpetuity.

## Sustainability Goals

Public Works has created the County’s Zero Waste Plan, which outlines a recommended approach to establishing a sustainable waste management future. More detailed implementation plans will be developed and implemented for each initiative that address feasibility, cost, proposed funding, and timeline.

Public Works is divided into multiple business functions (core service areas). Environmental Services is one of seven core service areas and has the following Vision Statement: Vibrant, waste-conscious communities with cutting-edge 21st century infrastructure. The Environmental Services Core Service Area provides trash collection and waste diversion services for approximately 1 million unincorporated area residents and over 20,000 businesses.





The Zero Waste Plan has the following overarching goals, directly related to the three components of sustainability:

## **ENVIRONMENT**

- Foster an environmentally sound waste management system that is focused on reducing waste generation and disposal. This system will make the best use of natural resources, support the production of recycled-content products, and expand local and sustainable infrastructure.

## **ECONOMY**

- Foster a system that is cost-effective and efficient. Work collaboratively with regional partners and private enterprises and identify new opportunities for innovation and green job creation.

## **EQUITY**

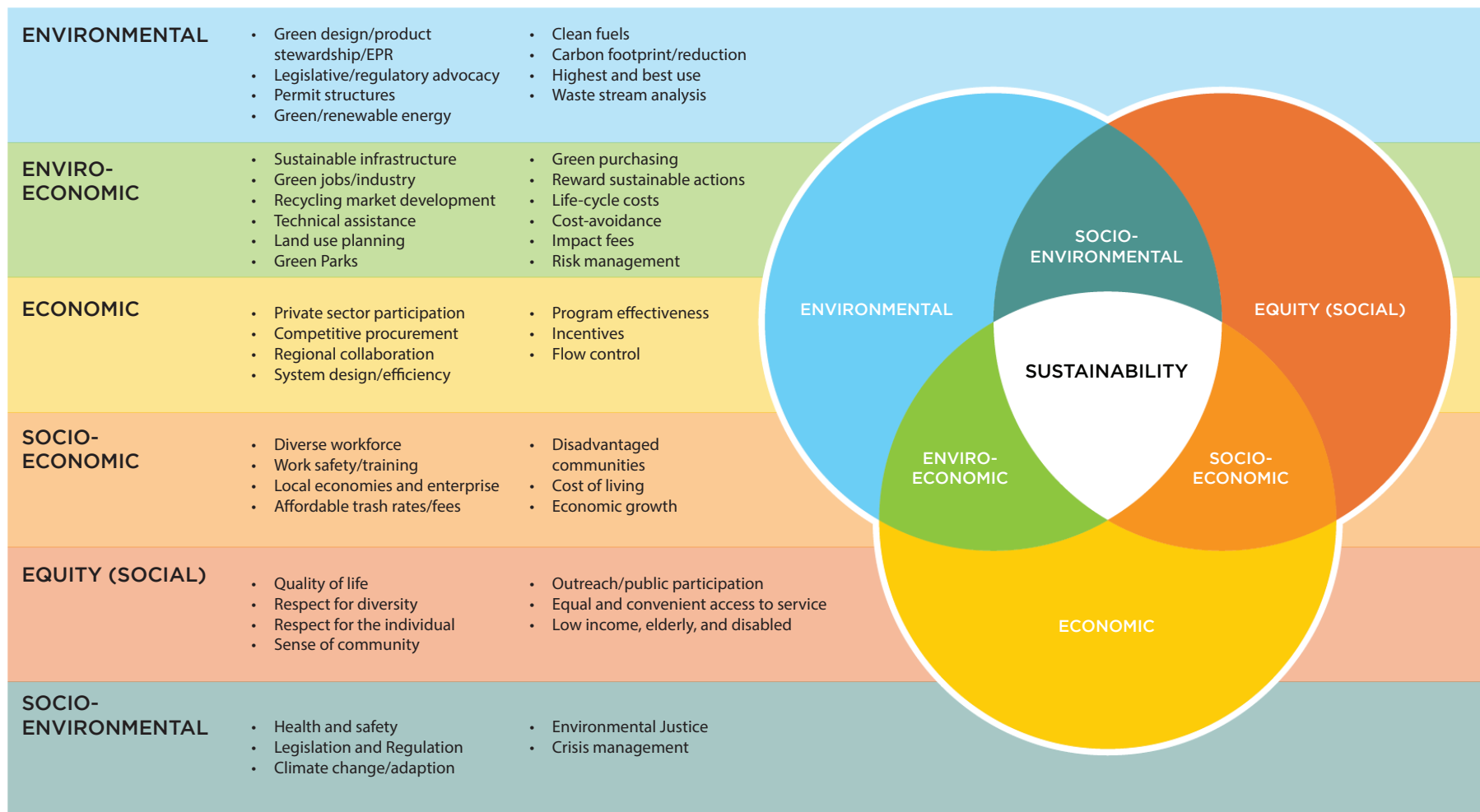
- Foster a system that is responsive to the needs of all communities, prioritizing those disproportionately burdened by pollution, by implementing programs and policies that protect our communities from pollution, facilitate community resilience, promote clean and healthy communities, and are feasible, measurable, and meaningful for rate payers. To be successful, a sustainable waste management system should empower residents and businesses to provide valuable input and have a stake in programs and policies implemented on their behalf, which builds a sense of community.





FIGURE 1: A Sustainable Waste Management System

The bullets shown below represent how the Environment, Economy, and Equity apply to a sustainable waste management system.



According to the United States Environmental Protection Agency, sustainable material management is a systematic approach to using and reusing materials more productively over their entire life cycles. Sustainable material management should also prioritize source reduction. It represents a change in how our society thinks about the use of natural resources and environmental protection. Our vision for a sustainable waste management future identifies materials as a resource that were formerly considered a liability, with the goal of one day eliminating waste in the CUCs.



The County aspires to be a regional leader in sustainability and adopts policies that support regional collaboration and strengthen private enterprise while ensuring equitable outcomes for communities.

As can be seen in Figures 2 and 3, the diversion rate continued to increase through 2016 by reaching 75 percent, after which it has begun to decrease to 65 percent in 2020. It is anticipated that China's restrictions on the importation of recyclable materials will contribute to a reduction in diversion. However, economic downturns, such as the one initiated by the COVID-19 pandemic, typically result in lower disposal rates and higher rates for diversion. Although with COVID-19, there was an increase in the use of single-use items specifically at restaurants and health facilities due to the concern of spread.

It is too early to tell how diversion rates for 2021 have been affected, since available data is not representative of current developments. Implementation of the Zero Waste Plan's initiatives, such as organic waste recycling and proposed revisions to the Construction and Demolition Debris Recycling and Reuse Ordinance, will help put the County back on track toward achievement of the Zero Waste Plan goal of 80 percent diversion by 2025.

## Disposal Reduction Targets

The following are disposal reduction targets to achieve a sustainable waste management future and work towards zero waste:

- Divert 80 percent of our waste from landfill disposal by 2025, equivalent to disposing no more than 3 pounds per person per day.
- Divert 90 percent of our waste from landfill disposal by 2035, equivalent to disposing no more than 1.5 pounds per person per day.
- Divert 95+ percent of our waste from landfill disposal by 2045, equivalent to disposing no more than 0.75 pounds per person per day.

The purpose of these ambitious targets is to set the bar high, providing the County with forward-looking goals and a framework for the development of necessary infrastructure and services to achieve a truly sustainable waste management future.





FIGURE 2: Disposal Data Per Capita

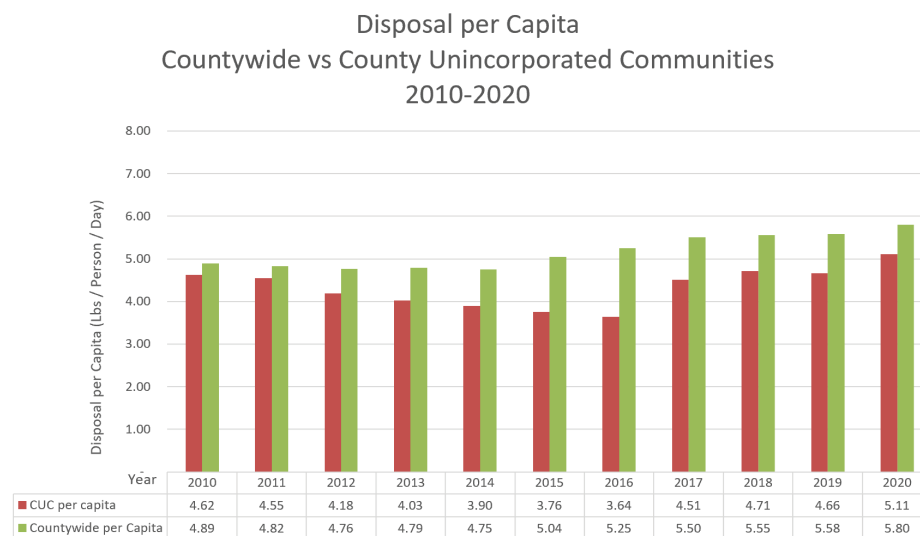
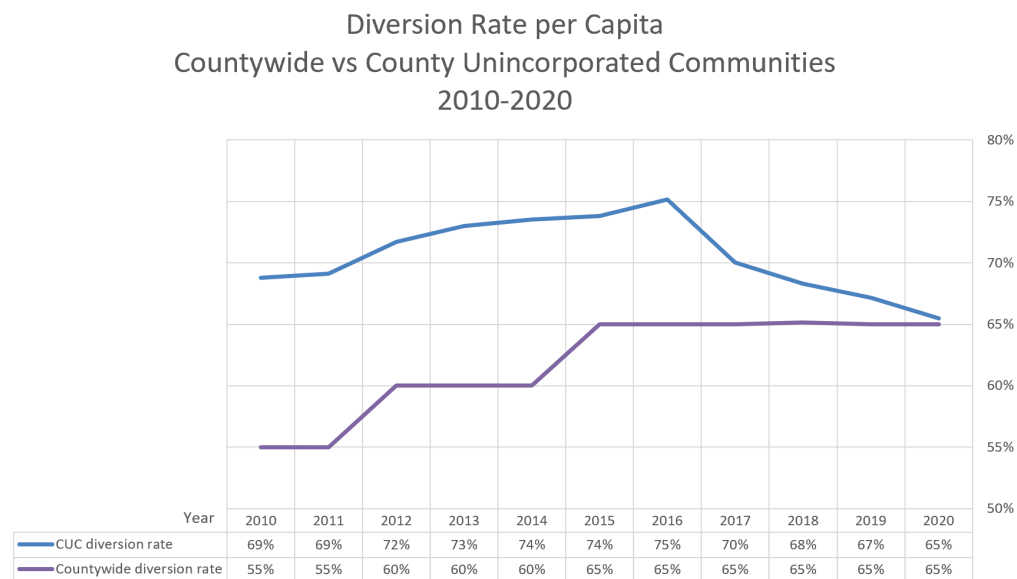


FIGURE 3: Diversion Data Per Capita





# Key Drivers for Sustainable Waste Management

The following legislative mandates have a significant impact on the County's and cities' operations and priorities when it comes to waste management:

## Greenhouse Gas Reduction

- AB 32 (2006) established GHG emissions reductions targets that require many sectors, including the waste industry to reduce emissions by 25 percent by 2020.
  - California Environmental Protective Agency reports the GHG emissions target reductions for California were reached in 2016, four years ahead of schedule.
- SB 32 (2016) requires the Air Resources Board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 emissions level by 2030 and to maintain and continue reductions thereafter.
  - The 2017 scoping plan update lays out strategies to achieve the 2030 GHG reduction targets set by Executive Order B-30-15 and codified by SB 32.
- SB 100 (2018) increases the Renewables Portfolio Standard to 60 percent by 2030 and requires all the State's electricity to come from carbon-free resources by 2045.
- In 2018, Governor Brown issued Executive Order B-55-18 to Achieve Carbon Neutrality, establishing a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.

## Mandatory Commercial Recycling

- AB 341 (2011) established a statewide goal that at least 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, from baseline average generation in years 1990-2010.
  - As indicated in CalRecycle's latest report "State of Disposal and Recycling in California for Calendar Year 2019", California's overall disposal increased for the seventh year in a row to 48.6 million tons in calendar year 2019. As a result, California's statewide recycling rate is down to 37 percent from its 2014 peak of 50 percent. California will not meet the 75 percent statewide recycling goal in 2020 as set out in AB 341.



## Organic Waste Management

- AB 1826 (2014) established phased in requirements for businesses and multi-family residences of five units or more to recycle their organic waste starting in April 2016, depending on the amount of waste they generate.
  - Subscribing to organic waste collection services can substantially increase waste collection costs for businesses and multifamily residences. Because AB 1826 did not include enforcement provisions, businesses and multifamily residences across the County have been reluctant to sign up for services at an increased cost.
- AB 1594 (2014) specified the use of green material as alternative daily cover will no longer constitute diversion beginning in 2020 and will instead be considered disposal for the purpose of determining a jurisdiction's compliance with AB 939 diversion requirements.
  - As a result, costs for waste haulers increased due to having to find alternative outlets to divert the green waste.
- SB 1383 (2016) established statewide targets to reduce emissions of short-lived climate pollutants, as well as to reduce organic waste landfill disposal 50 percent by the year 2020 and 75 percent by the year 2025, from a 2014 baseline. SB 1383 also established a target to recover 20 percent of edible food for human consumption that is currently being disposed in landfills by the year 2025.
  - SB 1383 directs CalRecycle to adopt regulations to achieve these targets. The regulations will require local jurisdictions to provide mandatory organic waste collection and recycling services to all residents, businesses, and local government facilities and implement edible food recovery programs for large commercial food generators beginning January 1, 2022. The SB 1383 regulations developed and adopted by CalRecycle were approved by the California Office of Administrative Law in November 2020.





# ALIGNMENT WITH CURRENT COUNTY PRIORITIES





The strategies identified in the Zero Waste Plan align closely with Los Angeles County's adopted plans and priorities, as well as other sustainability efforts, including the following:

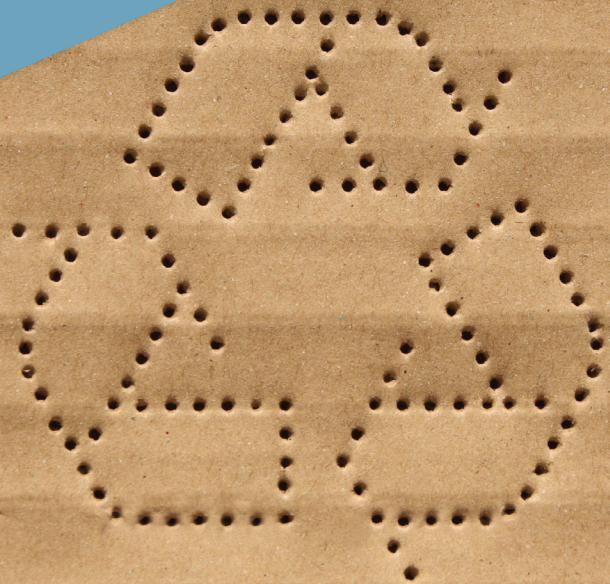
**Los Angeles County Countywide Siting Element (CSE)** – The Los Angeles County CSE assesses the disposal needs of the 88 cities and the CUCs for a 15-year planning period. CSE plans are prepared in compliance with the California Integrated Waste Management Act of 1989 (AB 939).

AB 939 requires cities and counties to divert 25 percent of their solid waste from landfills and solid waste facilities by 1995 and 50 percent by the year 2000, and every year thereafter, through source reduction, recycling, and composting programs.

**Los Angeles County Strategic Plan (2016-2021)** – This plan provides direction to departments and their partners to ensure their efforts are aligned with Board priorities. The plan is broken down into three goals, with the second goal being “Foster Vibrant and Resilient Communities”. One of the three strategies in the second goal is, “Making environmental sustainability our daily reality.” Included in this goal is the initiative to reduce waste generation and recycle/reuse waste resources by increasing landfill diversion and recycling programs and infrastructure and to inspire the community to reduce, reuse, and recycle waste materials.

**Los Angeles County General Plan 2035** – As a long-range planning policy document, the General Plan establishes future growth and land use development patterns for the CUCs. The General Plan contains goals and policies that guide the provision of public services and facilities, including waste management in conjunction with future growth and land use development. Specifically, the General Plan calls for “adequate disposal capacity and minimal waste and pollution.” The Zero Waste Plan is consistent with the General Plan goals and policies pertaining to waste management.

Furthermore, the General Plan organizes the County into 11 Planning Areas, which make up the Planning Areas Framework. The purpose of the Planning Area Framework is to provide a mechanism for local communities to work with the County to develop plans that respond to their unique and diverse character. The Zero Waste Plan will build on the Planning Areas Framework established by the General Plan to target public outreach efforts and waste studies.





**Los Angeles County Sustainability Plan** – OurCounty, the County’s Sustainability Plan, was prepared by the Chief Sustainability Office (CSO). The Board adopted this plan in August 2019. Goal No. 9 of OurCounty includes goals to divert waste going to landfills by 80 percent in 2025, 90 percent in 2035, and more than 95 percent in 2045 and are the same waste diversion goals of the Zero Waste Plan. Three of the sustainable strategies included in OurCounty that are directly related to the Zero Waste Plan include: 9A: Reduce waste generation, 9D: Capture organic waste and develop regional capacity for beneficial reuse, and 9E: Divert reusable and recyclable materials from landfills. Public Works and the CSO are collaborating to develop a strategy to align with the State electrification goals and the need for additional organic waste infrastructure.

**Los Angeles County Community Climate Action Plan (CCAP) 2020** – This plan was prepared by the Department of Regional Planning and adopted by the Board as part of the Air Quality Element of the Los Angeles County General Plan 2035 in October 2015. It describes the County’s plan to reduce the impacts of climate change by reducing GHG emissions from community activities in the CUCs by at least 11 percent below 2010 levels by 2020. The plan includes a waste diversion goal to divert at least 75 percent of the waste by 2020 and outlines a number of local recycling and composting initiatives that the County will implement in conjunction with waste service providers throughout the community in order to comply with all State mandates associated with diverting waste from landfill disposal. The CCAP is the County’s plan towards achieving carbon neutrality for CUCs by 2045, with interim targets to reduce GHG emissions 25 percent below 2015 levels by 2025 and 50 percent by 2035. The CCAP includes goals to reduce emissions from the waste sector, including decreasing waste generation, reducing and diverting organic waste, and achieving the landfill diversion targets in the 2014 Roadmap.









# PRIORITY ISSUES



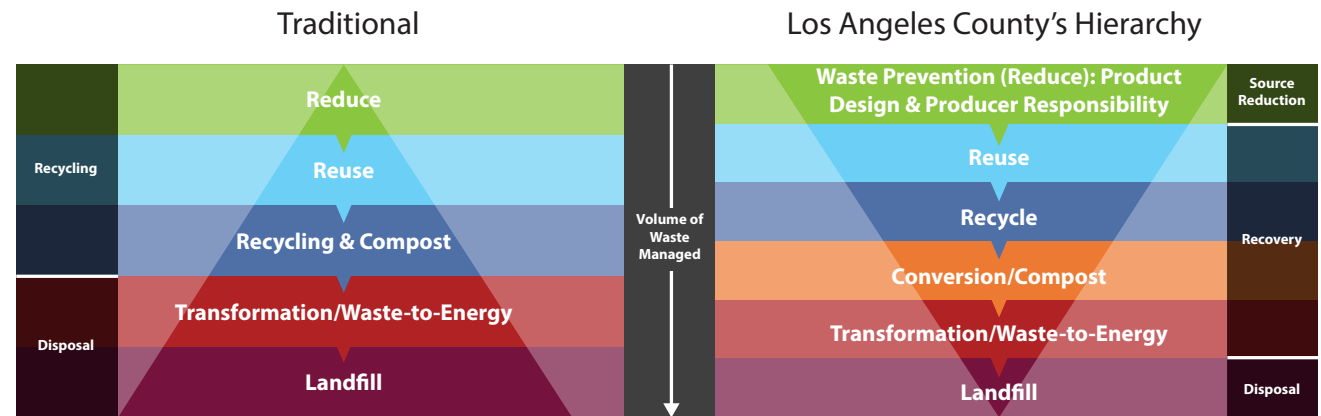


Certain issues are a major focus of the Zero Waste Plan due to the proportion of the waste stream potentially affected or the impacts those issues have on sustainability and the quality of life of residents in the County.



## Waste Prevention and Source Reduction

FIGURE 4: Traditional vs. Los Angeles County's Waste Management Hierarchy




The traditional waste management hierarchy relied primarily on landfill disposal. Los Angeles County's Hierarchy flips the paradigm, emphasizing source reduction and the benefits and use of materials over disposal.

Source reduction is at the top of the County's resource management hierarchy because it is considered to be more effective and yields the highest benefits from an environmental, economic, and social standpoint. The United States Environmental Protection Agency defines source reduction as activities designed to reduce the volume or toxicity of waste generated, including the design and manufacture of products with minimum toxic content, minimum volume of material, and/or a longer useful life. It is fundamentally different from the other waste management approaches. Source reduction preempts the need to collect, process, and/or dispose of materials by preventing their generation.

Waste prevention and source reduction requires behavioral changes within our communities. This is done through changes in policies and public education. Policies are important because they offer an opportunity to stimulate behavioral change through financial incentives, bans, and mandates. Creating awareness, engaging in effective communication, and providing solutions are important drivers of behavioral change. Educating the public and businesses with clear information is key for the success of reaching the County's waste diversion goals.





The County manages various new and existing programs to prevent and reduce waste. For example, in 2017 the County launched the BYO Campaign to reduce waste from single-use items and promote reuse. BYO encourages stakeholders to use reusable items such as cups, utensils, plates, etc. Public Works plans to work with other County Departments, such as Public Health, to facilitate the expansion of BYO throughout the County and will continue to conduct outreach and education to communities, which includes providing reusable items, resources, and guidance to encourage behavioral change.

## Extended Producer Responsibility and Product Stewardship

Producer Responsibility and Product Stewardship are strategies to place a shared responsibility for managing products at the end of their useful life. This helps ensure local jurisdictions are not solely financially responsible for managing these products.

Extended Producer Responsibility (EPR) shifts financial and management responsibility, with government oversight, upstream to the producer and away from the public sector. It provides incentives to producers to incorporate environmental considerations into the design of their products and packaging. In 2018, United States Environmental Protection Agency indicated that containers and packaging make up a major portion of municipal solid waste. Encouraging EPR in manufacturing consumer products is crucial since approximately 75 percent of our County's waste stream comes from manufactured products – common household items, such as magazines, prepared food, or toys, to household HHW products like electronics, fluorescent lights, batteries, paint, and pesticides. For the County to reach its sustainable waste management goals these materials must be targeted for reduction, reuse, and recycling.

The County advocates for and supports the implementation of statewide EPR legislation. Products are prioritized based on characteristics, such as toxicity, impacts to quality of life, and cost to manage. Current EPR policies and regulations, such as those being developed for SB 212 (passed in 2018, which establishes a comprehensive statewide take-back system for sharps and pharmaceuticals), are continuously being reviewed and feedback is provided on their implementation. The County is also exploring options for local policies to address packaging and products that are not presently recycled.



## Construction and Demolition Debris

Construction and Demolition (C&D) debris consists of materials, such as lumber, drywall, metals, masonry (brick, concrete, ceramics, plaster, etc.), carpet, plastics, pipe, rock, dirt, paper, cardboard, and organic waste related to construction activity. The Board adopted the C&D Recycling and Reuse Ordinance on January 4, 2005. County Code Title 20.87 & 22.52 now requires local C&D debris recycling for building, demolition, and grading permits in CUCs. Projects must divert 50 percent (65 percent for specified projects) of C&D debris generated and document compliance on completion. The Ordinance is expected to be revised early 2022, raising the recycling and reuse rate for construction and demolition projects to 70 percent, exceeding the California Green Building Standards Code minimum rate of 65 percent.

## Household Hazardous Waste and Electronic Waste

Although HHW/E-Waste represents less than 2 percent of the disposed waste stream, these materials, when not disposed properly, can be released into the environment and contaminate our air, water, and possibly the food we eat. They also represent a potential hazard to workers in the waste industry. The HHW/E-Waste program offers convenient opportunities for residents to properly dispose of their HHW/E-Waste by hosting more than 60 temporary events per year and supporting permanent centers where these materials are accepted free of charge. In addition, the County also supports the City of Los Angeles' Solvents/Automotive/Flammables/Electronics Centers. Through Countywide programs and City of Los Angeles' Solvents/Automotive/Flammables/Electronics Centers, in Fiscal Year 2019-20, more than 7,063 tons of HHW/E-Waste were collected. Of the total HHW/E-Waste collected by the County, over 70 percent were recycled, and the remainder properly disposed of at various hazardous waste facilities. Public Works also has partnerships with 21 County libraries that are designated drop-off locations where residents can dispose of household batteries. Residents can dispose of sharps waste, such as needles, lancets, or other devices used to administer medication intravenously, at one of 21 drop boxes located at Sheriff's stations throughout the County.





# Environmental Justice

It is essential for all County residents and communities to have clean air and water, as well as to feel safe and secure in their daily lives, as environmental equity is a right for everyone. The County is working towards minimizing the exposure of vulnerable populations to pollution to create and sustain resilient and healthy community environments where residents have equal opportunities to thrive.

The Zero Waste Plan shares the environmental justice goal of the OurCounty Plan and Green Zones Program to protect the most vulnerable communities from pollution and ensures infrastructure development is equitable. The Green Zones Program was initiated by the Board of Supervisors in 2015 to enhance public health and land use compatibility in the CUCs that have been disproportionately impacted by pollution. The Board recommended adoption of the Final Environmental Impact Report in December 2021 and is expected to adopt the Green Zones Ordinance in Summer 2022.

In the past, many solid waste facilities, including recycling facilities and transfer stations, were located in low income or disadvantaged communities. Toxic pollutants were emitted by these facilities, which impacted public health and our environment. The Green Zones Program, created with a comprehensive community engagement process, will establish land use policies and zoning regulations to help improve the conditions of these areas. The Green Zones Program focuses on existing and future businesses and supports them to become better neighbors. When planning new solid waste infrastructure or enhancing existing infrastructure, equity will be a key factor.

In efforts to promote active and healthy communities, the County ensures that environmental education and waste diversion programs are implemented equitably on a countywide basis. For example, the County's School Garden Program that is offered to elementary schools promotes eating fresh vegetables and fruits and involves building school herb/vegetable gardens to teach students the benefits of growing their own organic food, while demonstrating how to compost organic waste through worm composting and how to care for a garden.







## Community Engagement/Outreach and Education

Sustainable management of waste relies heavily on community engagement/outreach and education to have proper and consistent messaging. The County provides outreach in various forms, such as site visits to businesses, community events, and print material in multiple languages. Waste reduction, reuse, and recycling programs are most successful when customers are not only informed, educated, and called to action, but supported in practical ways in their efforts to learn new behaviors. The County continues to conduct outreach and education to encourage residents to practice the four Rs (Reduce, Reuse, Recycle, Rethink). Current and new outreach material will help to educate residents, businesses, and County departments on how to comply with SB 1383.

The County has worked with media (including ethnic) and community partners to promote sustainability in the County. To encourage and educate residents regarding illegal dumping, media campaigns have included web banners, social media, and billboards. The County has garnered millions of audience impressions informing residents on how to prevent and report illegal dumping. The County has partnered with iHeartRadio/KOST FM to educate the public on environmental initiatives focusing on waste reduction during the holidays and the proper disposal of HHW/E-Waste. The County also participates in community events throughout the year to educate residents on programs such as recycling, BYO (to encourage reuse), proper disposal of HHW/E-Waste, and general waste reduction daily habits.

## Local Recycling Infrastructure & Market Development

Over the past few years, legislative and market changes have emphasized the need to expand and develop new local recycling infrastructure and markets for remanufactured materials in California. On October 15, 2019, the Board of Supervisors unanimously adopted a motion to pursue sponsorship of California State legislation to provide dedicated, long-term funding to spur investment in recycling, organic waste diversion infrastructure, and local market development. The proposed legislation addresses the impacts of China's National Sword Policy by providing funding for materials recovery facilities to invest in advanced sorting equipment and for expansion of the State's Recycling Market Development Zone Program.

In 2020 the County sponsored AB 2612 (Maienschein), which would have annually allocated \$200 million from the GHG Reduction Fund for both traditional and organic waste processing infrastructure. The bill did not proceed along with many other pieces of legislation due to COVID-19, but the County continues to pursue avenues for ensuring sufficient resources are dedicated to investing in sustainable infrastructure.





## Organic Waste Management

Methane emissions resulting from the decomposition of organic waste in landfills are a significant source of GHG emissions. Organic materials also account for a significant portion of California's overall waste stream, including food waste, which accounts for approximately 17-18 percent of total landfill disposal. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The regulations require local jurisdictions to adopt ordinances or other mechanisms to implement and enforce mandatory organic waste collection and recycling services for all residents, businesses, other organic waste generators, and mandatory edible food donation practices for large commercial food generators.

A key challenge with achieving the goals of SB 1383 is the lack of adequate organic waste infrastructure. To address this, the County is working with organic waste facility developers to promote the development of organic waste processing facilities in CUCs, in the Region/County, and at County facilities.

## Conversion Technologies

Conversion technologies refer to a wide array of non-combustion processes capable of converting post-recycled solid waste into useful products, including renewable, or negative-carbon electricity and fuels, in an environmentally beneficial way. These technologies may be thermal, chemical, biological, mechanical, or a combination of processes. Conversion technologies differ from traditional waste-to-energy and transformation in that they do not combust the waste. Anaerobic digestion and biomass conversion create bioenergy, typically in the form of biogas which can then be used as a transportation fuel, generate electricity (via engines, turbines, fuel cells or other processes) or used to create other chemicals. They present a real opportunity to address the County's solid waste capacity challenges directly and bring the County significantly closer to a zero-waste future. The County continues to advocate for changes in State law, policy, and regulation that would facilitate the development of conversion technology projects. Existing conversion technology projects in the region include the CSD Joint Water Pollution Control Plant co-digestion project in Carson, California, that converts food waste into renewable electricity, CR&R Waste and Recycling Services' Anaerobic Digestion Facility in Perris, California, that converts food waste and green waste into renewable vehicle fuel and pipeline renewable natural gas, and the Rialto Bioenergy Facility, North America's largest waste-to-energy facility, in San Bernardino County that converts organic waste into renewable natural gas, electricity, and organic fertilizer.



# Illegal Dumping

Illegal dumping is a growing problem not only within the County, but across the State, and there is no simple solution. Factors contributing to illegal dumping include, but are not limited to, high disposal costs, lack of enforcement, and lack of awareness of proper waste disposal. The County participates in the Antelope Valley Illegal Dumping Task Force that meets regularly to discuss and coordinate illegal dumping prevention programs in the County unincorporated Antelope Valley area. The County has organized a Working Group consisting of multiple County departments focused on developing and implementing solutions to address illegal dumping.

The County coordinates many illegal dumping prevention programs for unincorporated residents such as mattress recycling collection events; Disposal Day events at landfills in the County allowing residents to discard up to one ton of household goods; bulky item collection; and annual curbside cleanup events. The County also coordinates tire recycling collection events for all County residents. All these programs are available to residents at no additional cost.

County-contracted waste haulers pick up items illegally disposed of in public rights-of-way, with the exception of the Antelope Valley where County road maintenance staff collects trash in the road right-of-way. Town councils and community groups coordinate community cleanup events throughout the year, including neighborhood and desert cleanups, and offer education on the proper disposal of unwanted items and information on how to report illegal dumping.

For many years, the County has promoted how to report illegal dumping to improve the quality of life for residents by removing the dumped items, as soon as possible. The working group is discussing how to provide more resources to focus on prevention of illegal dumping through enforcement. This includes revisions to codes, new messaging, and creating a partnership with Public Works, Regional Planning, District Attorney, County Counsel, and the Sheriff to prosecute those who choose to pollute our environment instead of properly disposing waste.











## Homelessness

Due to an increased number of people experiencing homelessness (PEH), the Board authored Measure H that the voters passed in March 2017 to provide funding for services for PEH. The Measure H funds are for placing people in housing and providing limited services. Since the implementation of the homelessness initiative three years ago, thousands of County families and individuals have received help through the major expansion of outreach, emergency shelter, rapid rehousing, permanent supportive housing programs, and benefits advocacy programs.

The County has implemented a 10-year effort to combat and prevent homelessness. There are County residents of all ages and genders who are experiencing homelessness and need assistance to obtain vital services. Waste collection for PEH is one of the services the County is working on. There is a pilot dumpster program in the Rancho Dominguez area for PEH living in vehicles as well as other locations near encampments. Measure H funds are unable to be used to provide trash collection services; therefore, these pilot programs need to find a permanent funding source for them to be sustainable.

## Emergency Management and Regional Debris Management Planning

The County's unique geography makes it susceptible to various forms of natural disasters, including earthquakes, landslides, wildfires, mudflows, and tsunamis. These natural occurrences have the potential to create large quantities of debris, which must be managed in order to maintain public services during and immediately following an emergency. The County prepared the OA MDMP, which describes roles and responsibilities during debris operation and provide guidance to the County, 88 municipalities, and other public entities within the OA. This plan was adopted by the Los Angeles County Emergency Management Council in October 2016 and is a functional index to the County OA Emergency Response Plan.

Under the broader framework of the OA MDMP, the UA MDMP addresses the County's coordinated response to manage disaster debris in the CUCs following a large-scale disaster event. In November 2018, the Woolsey Fire, a destructive wildfire affected 1,769 properties and 96,949 acres of land in Los Angeles and Ventura Counties. The County implemented a two-phase debris removal program to maximize the diversion of wastes incurred. Disaster waste originating from the CUCs was disposed of in Calabasas landfill.

Using knowledge gained from the County's debris removal programs following the 2018 Woolsey Fire, the UA MDMP is currently being updated to include information related to the establishment of a private property debris removal program. The UA Plan will continue to be implemented following a declared disaster to provide policy and guidance for the removal and disposition of disaster debris located within road and flood rights of way in the CUCs.



# FOCUS AREAS





The County's solid waste management responsibilities include oversight for disposal capacity, regional diversion programs, waste collection and diversion programs specific to CUCs, and waste collection and diversion programs at County facilities. Therefore, the Zero Waste Plan is divided into the following focus areas:

## Focus Area 1: Regional/Countywide

Public Works, as the lead County agency advising the Board on regional waste management issues, has a Countywide responsibility to oversee certain waste management functions. AB 939 (1989) requires each county to prepare a Countywide Integrated Waste Management Plan. The Countywide Integrated Waste Management Plan consists of the Summary Plan, which provides a summary of all the 88 cities and unincorporated County's Source Reduction Recycling Element, HHW Element, and Non-Disposal Facility Element, and a summary of the existing, planned, and contingency source reduction, recycling, and composting programs identified by the jurisdictions in the County, which are being and will be implemented to achieve the State-mandated waste diversion goals; and a Countywide Siting Element, which addresses the 15-year disposal capacity need of the 88 cities and CUCs to safely handle residual solid waste, which remains after recycling, composting, and other waste diversion activities.

Providing regional leadership on sustainability and partnering with cities are important to assist the County in continuing to assure the long-term waste disposal needs of the County. In addition to disposal related activities, the County operates the largest HHW/E-Waste management program in the nation that serves all 88 cities and CUCs. The County also leads a nationally recognized research and development program for state-of-the-art technologies to convert municipal solid waste into electricity, renewable fuels, and other useful products.

The County is committed to providing high-quality solid waste management services that enhance the quality of life for all County constituents and protects the environment and its resources. Towards this end, the Zero Waste Plan contains strategies and initiatives that address regional and Countywide programs, services, facilities, and infrastructure needs.





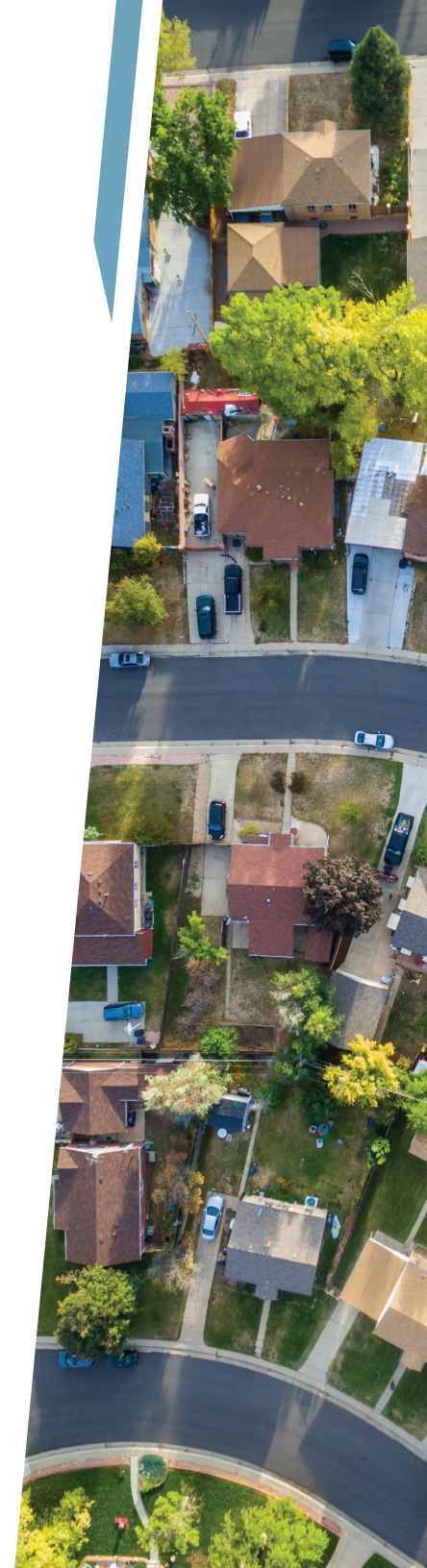
## Focus Area 2: County Unincorporated Communities

The CUCs comprise of 125 culturally and ethnically diverse communities spread over more than 65 percent of the County's area – approximately 2,650 square miles. More than one million people call the CUCs home, which represents approximately ten percent of the total population in the County. The Board of Supervisors is the governing body responsible for establishing policies and regulations for the CUCs.

In the CUCs, solid waste collection services are provided through a diverse and complex system that includes:

- **Residential Waste Collection Franchise System:** Public Works administers 20 exclusive residential waste collection franchises that serve approximately 600,000 residents. Each franchise waste hauler provides waste collection, recycling, and organic waste services to customers under an agreement with the County. Residents pay the franchise waste hauler directly for these services.
- **Garbage Disposal Districts:** Public Works administers 7 Garbage Disposal Districts (GDDs) that provide waste collection, recycling, and organic waste services to approximately 380,000 residents and businesses within the Districts. The services are provided by private waste haulers under contract with the County. Property owners within the GDDs pay for these services through an assessment on the property tax rolls.
- **Non-Exclusive Commercial Waste Collection Franchise System:** Since 2012, Public Works has administered a non-exclusive commercial franchise system where 19 private waste hauling companies have entered into contract to provide solid waste collection and recycling services to over 11,500 business and multi-family accounts. In 2020, the County began the process to transition from the non-exclusive franchise to an exclusive franchise system. The exclusive franchise system will designate multiple zones (defined geographic boundaries) within the CUCs where trash collection and recycling services are provided to businesses and multifamily residential complexes by one contracted private waste hauler per zone.
- **Open Market System:** Approximately 100,000 residents of CUCs in the northern portion of the County continue to operate under an open market system for waste collection. Under this system, residents contract directly with waste haulers for waste collection, recycling, and/or organic waste services. The County is in the process of establishing waste collection systems for the northern portion of the County to ensure compliance with existing and future regulations.
- **Self-Haul:** Residents and businesses also have the option to haul their own waste directly to publicly or privately-owned processing and disposal facilities.

The materials collected by the private waste haulers under each of the existing collection systems are taken to various publicly and privately-owned processing and disposal facilities. Currently, waste haulers have the discretion to determine which facilities to direct the waste and materials to, and their decisions are made primarily based on economics. However, in the future the County may exercise flow control and direct waste







haulers to take materials to certain facilities. This will assist in the development of much needed infrastructure in our region by ensuring the facilities will receive enough materials for them to be financially viable.

The County offers curbside recycling, organic waste collection, and many other innovative programs to encourage the four R's (Reduce, Reuse, Recycle, and Rethink), and regulates solid waste management and disposal operations at solid waste facilities in the CUCs.

Identifying the largest waste generators in the CUCs will help to prioritize where new programs, services, and facilities and infrastructure are needed. The County continues to review the waste management practices in CUCs, evaluate options for waste diversion, assess program costs, and monitor program effectiveness. The County launched a waste characterization study in 2019 to update information on the types and quantities of materials in the CUC waste stream. However, due to COVID-19 this study was suspended in March 2020. The study resumed in October 2021 as the waste stream returned to more normal patterns after people returned to work and more businesses reopened, following guidelines from Public Health officials. The findings of the study will help the County assess the effectiveness of existing diversion programs, recommend options for increasing the reduction and diversion of materials from the waste stream, and prioritize programmatic and infrastructure needs.

## Focus Area 3: County Operations

The County is one of the largest employers in Los Angeles County with more than 100,000 employees working in more than 30 departments/agencies. To facilitate sustainable waste management at County operations, Public Works conducts site visits through the Commercial and Institutional Recycling Program. This program develops Resource Management Plans, which provide facilities with recommendations they can implement to reduce waste and generally enhance the sustainability of their operations.

The County also has a Departmental Recycling Program. This program includes paper recycling, CRV beverage container recycling, toner cartridge recycling, scrap metal recycling, computers and related equipment recycling, battery recycling, department outreach and coordination for County department recycling and related policy efforts. The County has created and implemented several pilot programs, including the successful Scrape Your Plate program. The lessons learned from pilot programs are shared with all County departments through Department Recycling Coordinator meetings. The Zero Waste Plan includes recommended strategies and initiatives for additional programs and services and facility/infrastructure improvements to enhance County departments' sustainable waste management efforts and to lead by example.



# THE ZERO WASTE PLAN STRATEGIES AND INITIATIVES





# STRATEGY 1: PROGRAMS AND SERVICES

Develop, enhance, and expand high-quality responsive programs and services to provide for solid waste management needs while striving to reduce the amount of waste generated and disposed of at landfills.

This section presents the Zero Waste Plan's Strategies and Initiatives. These strategies and initiatives were developed with stakeholder feedback received during stakeholder meetings held in early 2020 and countywide community meetings held in August 2020.

Outreach and Education was considered as a stand-alone strategy in the original Roadmap. However, the Zero Waste Plan recognizes Community Engagement/Outreach and Education as a priority that must be considered in all three strategies: Programs and Services, Measuring Results, and Facilities and Infrastructure.

The Focus Area that applies to each sub-initiative is identified with the noted acronym(s) following the description shown below.

## FOCUS AREAS:

CUCs:	County Unincorporated Communities
R/CW:	Regional/Countywide
CO:	County Operations
ALL:	Applies to all Focus Areas

\* Timeline for each initiative is included in Appendix C, which lists the Strategies and Initiatives by Focus Area.



## **INITIATIVE 1A: INSTITUTIONALIZE WASTE PREVENTION AND SOURCE REDUCTION**

- Develop, implement, and enforce policies for certain materials, such as bans, restrictions, or ordinances, (e.g., plastics, single-use items, and organic waste). (ALL)
- Develop model purchasing guides/policies for schools, businesses, cities, and County/city facilities focusing on reducing toxics, packaging, and single-use items. (ALL)
- Develop and implement policies for County convenings to be zero waste events. (CO)
- Establish stakeholder subcommittees to develop new approaches for source reduction by residents and businesses. (ALL)
- Develop and circulate purchasing toolkits to promote residents to purchase only the food needed to prepare meals to reduce food waste. (R/CW, CUCs)
- Develop and circulate toolkits to promote paperless office practices for office and telework work locations. (ALL)
- Develop and circulate toolkits to residents to promote the reuse of household items instead of using single-use items (e.g., cloth towels vs. paper towels, reusable commuter mugs vs. paper cups and coffee sleeves). (R/CW, CUCs)
- Develop and circulate toolkits to residents to promote the environmental benefits of donating clothes and other textiles that they no longer need and/or use. (ALL)
- Support and develop reuse programs (e.g., redemption fees, repair cafes, material exchange, BYO). (ALL)

## **INITIATIVE 1B: ADVOCATE FOR EXTENDED PRODUCER AND MANUFACTURER RESPONSIBILITY (EPR)**

- Support Extended Producer Responsibility (e.g., ordinances, legal requirements, incentives). (ALL)
- Support voluntary or mandatory take-back initiatives for problematic products and packaging. (R/CW, CUCs)

## **INITIATIVE 1C: MAKE SUSTAINABILITY EASY AND DISCOURAGE “TRASHING”**

- Develop incentives for diverting waste to non-disposal alternatives. (ALL)
- Develop “Tech Lab” incubators for reuse/recycle enterprise development. (R/CW, CUCs)
- Evaluate alternative collection methods (e.g., collection frequency, size of bins, pay as you throw, true cost programs). (R/CW, CUCs)
- Create a mechanism to monitor and enforce recycling. (ALL)
- Increase recycling receptacles in public venues and business corridors with clear signage and messaging. (R/CW, CUCs)







### **INITIATIVE 1D: RECOVER ORGANIC MATERIALS, INCLUDING FOOD WASTE, TO THE HIGHEST AND BEST USES**

- Identify and partner with large food waste generators and work with local cities for food recovery and donation. (ALL)
- Establish network of community gardens and facilities for composting food/yard waste, using resources, such as the Smart Gardening program. (ALL)
- Develop organic waste collection and diversion programs in collaboration with waste haulers and other stakeholders while ensuring proper education of the public and businesses. (ALL)

### **INITIATIVE 1E: MAXIMIZE DIVERSION OF CONSTRUCTION AND DEMOLITION (C&D) DEBRIS**

- Revise County's C&D Recycling and Reuse Ordinance to incorporate green building standards and increase diversion requirements and make available to other jurisdictions for reference. (CUCs)
- Promote deconstruction and the use of salvaged materials via incentives and/or the development of a deconstruction services guide and support of Resource Recovery Centers. (R/CW, CUCs)
- Provide incentives for using durable building materials/products with long lifespans and minimal maintenance requirements. (ALL)
- Support historic preservation, "adaptive reuse" in building standards and the remodeling/repurposing of still functional buildings. (R/CW, CUCs)

### **INITIATIVE 1F: MAXIMIZE DIVERSION OF HOUSEHOLD HAZARDOUS WASTE AND ELECTRONIC WASTE**

- Identify incentives to encourage the use of environmentally preferable items. (ALL).
- Provide education on alternative products to eliminate or reduce HHW. (ALL)
- Engage residents, community-based organizations, and stakeholders during the planning process for new permanent HHW and E-waste collection centers. (R/CW, CUCs)
- Establish reuse centers for reusable products dropped off at permanent centers to be made available to the public. (R/CW, CUCs)
- Increase number of permanent HHW and E-Waste collection centers and expand hours/days of operation for current centers. (R/CW, CUCs)



## INITIATIVE 1G: COMMUNITY ENGAGEMENT/OUTREACH AND EDUCATION

- Develop a standardized and consistent communication plan promoting the 4 R's (Reduce, Reuse, Recycle, and Rethink) based on demographics, resources, and commercial and industrial businesses in targeted areas. (ALL)
- Incorporate multiple languages (Arabic, Armenian, Chinese, Farsi, Korean, Spanish, Tagalog, Vietnamese, etc.) in educational and outreach efforts, as needed. (R/CW, CUCs)
- Communicate waste reduction messages in a culturally sensitive manner to County residents, businesses, environmental organizations, and other stakeholder groups. (ALL)
- Expand communication through social media. (ALL)
- Form a Youth Advisory Board to get feedback directly from our younger stakeholders (R/CW, CUCs)
- Incorporate incentives, awards, contests, etc. to encourage all stakeholders to participate in sustainability programs. (ALL)
- Educate businesses and government facilities on recycling programs that may help reduce their disposal costs and increase their recycling rate. (ALL)
- Host planning workshops with waste haulers, businesses, multi-family complex owners, and other stakeholders for feedback and collaboration. (CUCs/RC)
- Partner with town councils, homeowners' associations, chambers of commerce, faith-based organizations, community-based organizations, conservation corps, local community colleges, etc. to get messaging out. (R/CW, CUCs)

## INITIATIVE 1H: EMERGENCY MANAGEMENT/MASS DEBRIS MANAGEMENT PLAN

- Update the Unincorporated Area Mass Debris Management Plan to include a Private Property Debris Removal Addendum to maximize diversion of materials following emergencies and disasters. (CUCs)





# STRATEGY 2: MEASURING RESULTS

Establish standards and protocols for benchmarking, goal setting, monitoring, and evaluation to enhance the measurement of programs, services, facilities, equitable investments, and infrastructure. Focus on continuous improvement and encourage innovation to reduce, reuse, recycle, and rethink waste.

## INITIATIVE 2A: WASTE SECTOR ASSESSMENT

- Conduct regular Waste Characterization Studies to determine which material types to target for diversion and share results with stakeholders. (ALL)
- Develop an ordinance or similar mechanism to require solid waste facilities to report various information to local jurisdictions. (R/CW, CUCs)
- Conduct surveys to determine program effectiveness and solicit feedback. (ALL)

## INITIATIVE 2B: EVALUATE AND MEASURE THE SUCCESS OF EXISTING PROGRAMS AND CONSIDER NEW PROGRAMS

- Establish benchmarks tied to waste reduction goals – generation, disposal, recycling, and other diversion. (ALL)
- Create a framework/template/tools to monitor and measure the success of new and existing source-reduction, recycling, and reuse programs. (ALL)
- Analyze the lifecycle effects of non-recyclable, single-use materials (e.g., plastics and packaging) and recycled materials. (R/CW, CUCs)

## INITIATIVE 2C: ENSURE SUSTAINABLE FUNDING AND ALIGNMENT OF INCENTIVES WITH PROGRAM GOALS

- Review program expenditures and revenues on a regular basis to ensure efficiencies and sustainable funding. (ALL)
- Identify options for program funding adjustments that incentivize recycling/reusing and fund diversion programs. (ALL)
- Evaluate the financial impact of scavenging on recycling programs and identify options to reduce scavenging. (CUCs, CO)
- Explore grant funding and loans to augment program funding. (ALL)



# STRATEGY 3: FACILITIES AND INFRASTRUCTURE

Identify the facility and infrastructure needs for each Focus Area. Encourage the development of state-of-the-art sustainable local waste management facilities and infrastructure in a fiscally, equitably, and environmentally responsible manner.

## INITIATIVE 3A: DEVELOP SUSTAINABLE WASTE MANAGEMENT FACILITIES, INCLUDING CONVERSION TECHNOLOGIES AND INTEGRATED MATERIALS RECOVERY FACILITIES

- Define clear permitting pathways and development standards for new or modified Sustainable Waste Management Facilities that minimize impacts and maximize benefits for the communities in which they are located. Such facilities recover or convert waste into renewable, negative-carbon fuels, electricity, and other useful products. (R/CW, CUCs)
  - Engage with community-based organizations throughout the development of a project and the permitting process to ensure adequate review and comment by the public.
  - Seek and gain State level support and funding for sustainable waste management facilities.
  - Require new facilities to provide community amenities such as education and recreation centers.
  - Support or increase incentives for the end products of conversion technology facilities.
- Sponsor/support legislation to encourage the development of conversion technologies and the use of their end products. (R/CW, CUCs)
- Develop guidelines for using recovered products from sustainable waste management facilities. (R/CW, CUCs)
- Establish partnerships, including with community organizations, to develop educational pilot projects to demonstrate the benefits, feasibility, and safety of sustainable waste management technologies. (ALL)
- Establish incentives to level the cost differential between sustainable waste management facilities and landfills and incentivize waste haulers to direct waste to such facilities. (R/CW, CUCs)

## INITIATIVE 3B: ORGANIC WASTE PROCESSING INFRASTRUCTURE

- Sponsor/support legislation to fund the development of organic waste processing infrastructure and promote markets for their end products. (R/CW, CUCs)
- Explore grant funding and loans to fund organic waste processing infrastructure. (ALL)



- Encourage the development of organic waste diversion facilities, including biomass conversion, composting, and anaerobic digestion of organic materials. (ALL)
- Explore public-private partnerships for infrastructure development that could be replicated by other jurisdictions to close the regional infrastructure gap. (ALL)
- Engage residents, community-based organizations, and stakeholders during planning and before development of new organic waste diversion facilities. (ALL)
- Develop and implement pilot organic waste management programs. (ALL)
- Encourage opportunities for co-digestion of organic materials at wastewater treatment plants. (ALL)
- Explore opportunities to develop micro-composters or digesters at large community venues/facilities. (ALL)

### **INITIATIVE 3C: LOCAL GREEN BUSINESS & MARKET DEVELOPMENT**

- Promote and incentivize the use of locally generated reusables and recycled materials. (ALL)
- Support minimum recycled content policies. (ALL)
- Promote the use of products from processing organic waste (e.g., fuels, compost, mulch, fertilizer). (ALL)
- Support product certification standards and statewide definitions for recyclability and compostability along with proper labeling requirements. (ALL)
- Expand the RMDZ to include additional interested cities in Los Angeles County. (R/CW, CUCs)
- Seek out and promote grant funding for green businesses. (R/CW, CUCs)
- Seek and encourage new green businesses and remanufacturing facilities to locate in Los Angeles County. (R/CW, CUCs)
- Create a toolkit to circulate through local Chamber of Commerce chapters and other business organizations to promote the RMDZ program to businesses and entrepreneurs to encourage equitable community-based waste reduction operations. (R/CW, CUCs)





### INITIATIVE 3D: RESOURCE RECOVERY CENTERS

- Facilitate the development of Resource Recovery Centers at sustainable waste management facilities, transfer stations and landfills in the County to promote waste reduction in a convenient manner. (R/CW, CUCs)

### INITIATIVE 3E: MAXIMIZE ALIGNMENT WITH STATE AND COUNTY GOALS

- Coordinate with State Agencies to address conflicting regulations. (R/CW, CUCs)
- Identify opportunities to achieve shared goals (such as using biogas to reduce GHG emissions and creating a market for organic waste products while supporting electrification). (R/CW, CUCs)









# CONCLUSIONS AND NEXT STEPS





Achieving a truly sustainable waste management future and working towards zero waste for the County is a complex and challenging goal; however, the potential rewards are substantial and well worth the effort, including:

- Reducing dependence on landfilling and waste exporting.
- Alleviating the improper disposal of waste and associated public health impacts.
- Conserving natural resources.
- Protecting the environment.
- Striving for a cost-effective waste management system.
- Creating green jobs.
- Facilitating community-based programs and venues through which to instill positive change.

The County will continue to hold regular meetings to engage stakeholders to solicit additional suggestions and feedback from residents, businesses, public agencies, the waste industry, environmental organizations, and any other interested stakeholders. Through a transparent stakeholder process, the County will develop more detailed plans for implementing the Zero Waste Plan initiatives with reference to budget, timeline, and staffing, as appropriate.





## APPENDIX A: Definitions

TERM	DEFINITION
<b>AB 32</b>	The California Global Warming Solutions Act of 2006 requires California to reduce its greenhouse gas emissions to 1990 levels by 2020, a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario.
<b>AB 341</b>	Mandatory Commercial Recycling Law. As of July 1, 2012, California requires all businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units to recycle. The specific statutory language for the law (Assembly Bill 341) can be found in the State's Public Resources Code (PRC): PRC Division 30, Part 3, Chapter 12.8, Section 42649.
<b>ALTERNATIVE TECHNOLOGY</b>	Refers to a technology capable of processing residual municipal solid waste (MSW) and/or organic waste, including as conversion technology, transformation, or other emerging technologies, in lieu of land disposal.
<b>ANAEROBIC DIGESTION</b>	A series of biological processes in which microorganisms break down biodegradable material in the absence of oxygen and recover an energy-rich biogas.
<b>BENEFICIAL USE MATERIALS</b>	Refers to: (1) solid waste that has been source separated or otherwise processed and put to beneficial use at a facility or separated or otherwise diverted from the waste stream and exported from the facility for purposes of recycling or reuse, and shall include, but not be limited to, wood waste, asphalt, concrete, or dirt; (2) clean dirt imported to cover and prepare interim and final fill slopes for planting and for berms; or (3) all Alternative Daily Cover materials types.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>BIOMASS</b>	Any organic material not derived from fossil fuels, such as agricultural crop residue, bark, lawn, yard and garden clippings, leaves, silvicultural residue, tree and brush pruning, wood and wood chips, and wood waste, including these materials when separated from other waste streams. 'Biomass' or 'biomass waste' does not include material containing sewage sludge, industrial sludge, medical waste, hazardous waste, or either high-level or low-level radioactive waste.
<b>CALIFORNIA PRODUCT STEWARDSHIP COUNCIL</b>	The California Product Stewardship Council is a network of local governments, nongovernment organizations, businesses, and individuals supporting policies and projects where producers share the responsibility of managing problem products at end of life, commonly known as extended producer responsibility (EPR).
<b>CALIFORNIA STATE ASSOCIATION OF COUNTIES (CSAC)</b>	The primary purpose of the CSAC is to represent County government before the California Legislature, administrative agencies, and the Federal Government. CSAC places a strong emphasis on educating the public about the value and need for county programs and services.
<b>COMPOST</b>	The product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. Compost includes food, yard, and wood waste, which are not hazardous waste.
<b>COMPOSTABLE</b>	Composed of materials, such as vegetable matter, paper, cardboard, and plastics that must: (1) break down to carbon dioxide, water, inorganic compounds, and biomass at a rate similar to paper; (2) disintegrate into small pieces within 90 days, so that the original product is not visually distinguishable in the compost, and; (3) leave no toxic residue.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>COMPOSTING</b>	The biological decomposition of organic wastes.
<b>CONVERSION TECHNOLOGIES</b>	Refers to a wide array of technologies capable of converting organic waste, post-recycled solid waste, or residual solid waste into renewable negative-carbon fuels or energy, as well as other beneficial products through noncombustion thermal, chemical, or biological processes. Conversion technologies may include mechanical processes when combined with a noncombustion thermal, chemical, or biological conversion process.
<b>COUNTY</b>	The County of Los Angeles, including the Board of Supervisors as the legislative and executive body of County government, including any designated agency responsible for solid waste management.
<b>COUNTY GREEN PURCHASING POLICY</b>	Los Angeles County Policy P-1050, Purchase of Environmentally Preferable Products, established objectives for the purchase of products by County departments. Under this Purchasing Policy, the County is responsible to develop a 5-year plan to phase in categories of various goods. Easy to adopt purchasing categories, such as paper have been implemented.
<b>COUNTYWIDE</b>	The incorporated cities within the County and the unincorporated areas of the County.
<b>CURBSIDE COLLECTION</b>	Primarily for residential collection. The collection of solid waste, recyclables, and/or other materials placed curbside by the generator. The generator is responsible for returning containers to the appropriate location after collection service.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>CRV</b>	California Redemption Value is a deposit paid on sales of certain recyclable beverage containers in California.
<b>DIRECT HAUL</b>	Hauling of collected solid waste in the collection vehicle from its point of collection to a solid waste management facility (material recovery, mulching, composting, waste-to-energy, or landfill facilities).
<b>DISPOSAL</b>	The final deposition of solid waste onto land, into the atmosphere; the management of solid waste through landfill disposal or transformation at a permitted solid waste facility; the final deposition of solid wastes onto the land; "the management of solid waste through landfilling or transformation at permitted solid waste facility".
<b>DIVERSION</b>	The act of diverting one or more designated materials from a solid waste stream. Diversion typically occurs at the point of generation. Normally, diversion is used to divert recyclables for separate collection, but it may also be used to prevent certain materials from being managed with the rest of a solid waste stream.
<b>EXTENDED PRODUCER RESPONSIBILITY (EPR)</b>	A mandatory form of product stewardship that includes, at a minimum, the requirement that the producer's responsibility for their product extends to the post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) the shifting of management and financial responsibility upstream to the producer and away from municipalities; and (2) to provide incentives to producers to incorporate environmental considerations in the design of their products.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>FLOW CONTROLS</b>	Legal provisions that allow State and local governments to designate the places where MSW is taken for processing, treatment, or disposal. Flow controls may take the form of a "waste shed" restriction, limits on the amount of waste from individual jurisdictions, host fees, and/or outright bans on the importation of solid waste.
<b>GREEN WASTE</b>	Organic wastes from lawn, tree, horticultural, and landscaping services, including leaves, grass clippings, tree prunings, large cut waste timber and stumps, and other materials, which are generated by commercial or nonresidential activities, as well as similar materials generated by homeowners from their lawns and gardens.
<b>HOUSEHOLD HAZARDOUS WASTE</b>	Solid waste generated by residential generators that exhibit the characteristics of a hazardous waste as established by the United States Environmental Protection Agency's hazardous waste regulations. These wastes are exempt from the Resource Conservation and Recovery Act hazardous waste regulatory requirements but, may be included in state regulations.
<b>HYDRATION STATION</b>	A water fountain that provides a filtration unit designed to facilitate the filling of reusable water bottles and thereby promote reuse and eliminate the need for disposable plastic water bottles.
<b>LANDFILL</b>	A waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundment, waste pile, land treatment unit, injection well, or soil amendments.
<b>LEAN OPERATIONS</b>	Reducing the amount of raw materials needed.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>MATERIALS RECOVERY FACILITY</b>	A solid waste facility where solid waste or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling, composting, or use as feedstock for alternative technology facilities.
<b>ORGANIC WASTE</b>	Material containing carbon and hydrogen. Organic material in MSW includes the biomass components of the waste stream, as well as hydrocarbons usually derived from fossil sources (e.g., most plastics, polymers, the majority of waste tire components, and petroleum residues).
<b>PAPERLESS OFFICE</b>	Refers to a County initiative to eliminate paper and digitize filing systems and internal processes.
<b>PAY-AS-YOU-THROW</b>	In communities with pay-as-you-throw programs (also known as unit pricing or variable-rate pricing), residents are charged for the collection of MSW (ordinary household trash) based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste.
<b>POST-RECYCLED</b>	Material remaining after recycling that would have otherwise gone to disposal.
<b>PRICE SIGNAL</b>	Information conveyed via the price charged for a product.
<b>PUTRESCIBLE WASTE</b>	Solid wastes that are capable of being decomposed by micro-organisms with sufficient rapidity as to cause nuisances because of odors, vectors, gases or other offensive conditions, and include materials, such as, but not limited to food wastes, offal and dead animals.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>RECOVERY</b>	Refers to any waste management operation that diverts a material from the waste stream, which results in a product with a potential economic or ecological benefit. Recovery mainly refers to the following operations: (1) re-use; (2) material recovery, such as recycling; (3) biological recovery, such as composting; and (4) energy recovery, such as fuel production.
<b>RECYCLING</b>	The process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products, which meet the quality standards necessary to be used in the marketplace.
<b>REMOVAL</b>	Defined in the California Code of Regulation, Title 27, Section 20164 as "the act of taking solid wastes from the place of waste generation either by an approved collection agent or by a person in control of the premises".
<b>RESIDUAL SOLID WASTE</b>	Refers to the post-recycled content or remaining solid waste after MSW has gone through the recycling, source reduction, and reuse method.
<b>RUBBISH</b>	Non-putrescible solid wastes, such as ashes, paper cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, plastics, rubber by-products, or litter.
<b>SALVAGING</b>	The controlled removal of waste material for utilization.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>SCAVENGING</b>	Defined in California Code of Regulation, Title 27, Section 20164 as "the uncontrolled and/or unauthorized removal of solid waste materials, or recyclable material at a solid waste facility".
<b>SHARPS</b>	Hypodermic needles, pen needles, intravenous needles, lancets, and other devices that are used to penetrate the skin for the delivery of medications.
<b>SOLID WASTE</b>	All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge, which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. "Solid waste does not include any of the following wastes: (1) Hazardous waste, as defined in Section 40141 of the PRC; (2) Radioactive waste regulated pursuant to the Radiation Control Law (Chapter 8 (commencing with Section 114960) of Part 9 of Division 104 of the Health and Safety Code); and (3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the Health and Safety Code). Untreated medical waste shall not be disposed of in a solid waste landfill, as defined in Section 40195.1 of the PRC. Medical waste that has been treated and deemed to be solid waste shall be regulated pursuant to Division 30 of the PRC."
<b>SOLID WASTE DISPOSAL</b>	Refers to the final deposition of solid waste onto land, into the atmosphere, as defined in PRC, Section 40192; or the management of solid waste through landfilling or transformation at a permitted solid waste facility.



## APPENDIX A: Definitions

TERM	DEFINITION
<b>SOLID WASTE MANAGEMENT</b>	A planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, and conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, and environmentally sound and economical manner. It includes all administrative, financial, environmental, legal and planning functions, as well as the operational aspects of solid waste.
<b>STATE</b>	Refers to the State of California.
<b>SUSTAINABLE</b>	Ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.
<b>SUSTAINABLE WASTE MANAGEMENT FACILITY</b>	Refers to a facility that recovers or converts post-recycled solid waste into renewable, negative-carbon fuels, electricity, and other useful products using noncombustion technologies.
<b>TOXIC / HAZARDOUS</b>	Chemical hazards and toxic substances pose a wide range of health hazards (e.g., irritation, sensitization, and carcinogenicity) and physical hazards (e.g., flammability, corrosion, and reactivity).
<b>TRANSFER STATION</b>	Refers to a facility that receives unprocessed waste, temporarily stores it, and ships it off-site to another facility.

## APPENDIX A: Definitions

TERM	DEFINITION
<b>UNIVERSAL WASTE</b>	EPA's universal waste regulations streamline hazardous waste management standards for federally designated "universal wastes", which include batteries, pesticides, mercury-containing equipment and bulbs (lamps). The regulations govern the collection and management of these widely generated wastes, thus facilitating environmentally sound collection and proper recycling or treatment.
<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>	The federal agency charged with setting policy and guidelines and carrying out legal mandates for the protection of human health and the environment.
<b>WASTE</b>	Material eliminated or discarded as no longer wanted, useful, or required.
<b>WASTE-FREE/ ZERO-WASTE</b>	Optimally manage and reduce solid waste by diverting from the waste stream and maximizing recycling opportunities to eventually achieve 95 percent landfill diversion.
<b>WASTE SHED</b>	Refers to a geographical area from which waste can logically be delivered to a given disposal facility. This term is synonymous with waste service area.
<b>WASTE STREAM</b>	Refers to the total flow of solid waste from homes, businesses, institutions, and manufacturing plants that must be recycled, reused, composted, converted to useful products or disposed of in a landfill; or any segment thereof, such as the "residential waste stream" or the "recyclable waste stream."
<b>WASTE-TO-ENERGY</b>	Refers to an incineration process in which residual solid waste is combusted and the released heat is utilized to generate hot water, steam, and electric power, leaving the inert fraction (ash) as a residue.



## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>BATTERY RECYCLING PROGRAM</b>	Educates and encourages County residents to properly dispose of their household batteries. Public Works partnered with the County Public Library to collect household batteries at designated libraries throughout the County. The program was designed to offer residents a free and convenient outlet to dispose of common household batteries, such as Dry Cell Batteries (AA, AAA, C, D, 9-Volt), Rechargeable Batteries (used in cell phones and power tools), and Button Cell Batteries (used in watches, cameras, and hearing aids).	County Unincorporated Communities
<b>COMMUNITY CLIMATE ACTION PLAN</b>	The Los Angeles County Community Climate Action Plan (CCAP) 2020 was prepared by the Department of Regional Planning and adopted by the Los Angeles County Board of Supervisors in 2015 as a component of the Los Angeles County General Plan 2035. The CCAP is the County's plan towards achieving carbon neutrality for unincorporated areas of the County by 2045, with interim targets to reduce greenhouse gas emissions 25 percent below 2015 levels by 2025 and 50 percent by 2035. The CCAP includes a greenhouse gas inventory; projections for future emissions; and a roadmap for addressing emissions from transportation, stationary energy (used by buildings and other facilities), waste, industrial, agricultural, and land use sectors.	County Unincorporated Communities
<b>CONSTRUCTION &amp; DEBRIS ORDINANCE</b>	The Ordinance requires projects in the unincorporated areas to recycle or reuse 50 percent of the debris generated, thereby increasing the diversion of construction and demolition debris from disposal facilities.	County Unincorporated Communities/County Operations

## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>COUNTY DEPARTMENTAL RECYCLING PROGRAM</b>	Includes paper recycling, California Redemption Value beverage container recycling, toner cartridge recycling, scrap metal recycling, computers and related equipment recycling, battery recycling, and department outreach and coordination for County recycling and related policy efforts.	County Operations
<b>COUNTY EXISTING BUILDING LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) CERTIFICATIONS</b>	In 2008, the County adopted an ordinance requiring all new County facilities 10,000 square feet or greater to be LEED Silver certified. In 2016 the County adopted an ordinance upgrading this requirement to LEED Gold certification.	County Operations
<b>COUNTY SURPLUS PROGRAM</b>	Includes land sales, fleet equipment public auctions, and lost and found public auctions; includes redistribution of County consumables among County facilities and operations.	County Unincorporated Communities/County Operations
<b>ENVISION INSTITUTE FOR SUSTAINABILITY INFRASTRUCTURE RATING SYSTEM</b>	In 2011, in order to establish a common platform to define sustainable infrastructure, Public Works adopted Envision™, the Institute for Sustainable Infrastructure sustainability rating system. Envision™ certification applies to civil infrastructure of all types and provides rating of the project's economic, social, and environmental impact during design, planning, construction, and maintenance phases.	County Operations



## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>EXPANDED POLYSTYRENE (EPS) FOOD CONTAINER ERADICATION IN COUNTY BUILDINGS</b>	The Board directed Public Works to phase out the use of EPS food packaging at all County operations, to include restricting the purchase and use of all EPS food containers at County facilities, offices, County-managed concessions, and by commercial food and beverage suppliers at County-permitted or -sponsored events.	County Operations
<b>FARM RESTORATION AT PITCHESS DETENTION CENTER (PDC)</b>	Farm operations offsets significant inmate food costs, provides vocational and educational opportunities for jail inmates, lowers the carbon footprint, and ensures food supply for inmates. The farm program includes bees and honey production, vermiculture, small scale protein production (tilapia and chickens), greenhouse plant propagation, and community gardens. Other planned programs will minimize water use and preserve the aquifer beneath PDC, eliminate the need for inorganic soil amendments, pesticides and herbicides, restore the health of the soil and watershed, enhance Education Based Incarceration programs, and ensure an optimal and sustainable source of inmate food with significant cost savings to the County.	County Operations
<b>FOOD DONATION &amp; RECOVERY OUTREACH PROGRAM</b>	Provides resources to businesses operating in the County unincorporated communities to safely donate their excess edible food to nonprofit organizations to fight hunger and reduce food waste in Los Angeles County. Food generating businesses and food recovery agencies are matched through the program to provide excess food to those in need and divert edible food from ending up in landfills. This program also offers consultation to food establishments located in the unincorporated communities to enhance edible food donation.	County Unincorporated Communities Regional/Countywide

## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>GREEN PURCHASING POLICY</b>	In 1994, County adopted a procurement policy for purchase of recyclable materials and recycled-content products. In 1998, the policy expanded to include preference of re-refined motor oil for use in County vehicles if the re-refined oil is comparable and within a 5 percent cost. In 2007, the County adopted stronger green purchasing policies that encourage the purchase of products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable.	County Operations
<b>HOUSEHOLD HAZARDOUS WASTE/ ELECTRONIC-WASTE PROGRAM</b>	Provides residents with a convenient outlet to dispose of their Household Hazardous Waste /Electronic Waste at permanent centers or at temporary collection events in various communities throughout the County. These events provide residents with a free means to dispose of their toxic, poisonous, corrosive, flammable, and combustible household items, as well as electronic waste.	Regional/Countywide
<b>ILLEGAL DUMPING REPORTING</b>	Illegal dumping is any unauthorized disposal of waste on any public or private property. Under this program, the County, the community, and waste haulers collaborate to remove and eliminate illegal dumping.	County Unincorporated Communities
<b>LIBRARY BOOK RECYCLING</b>	Los Angeles County Library recycles 600,000 pounds of books and paper yearly. By collecting books, which have reached the end of their usefulness and diverting them from landfills, the Public Library takes a further step toward being a responsible steward of the environment.	County Unincorporated Communities



## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>MATTRESS RECYCLING PROGRAM</b>	The California's Used Mattress Recovery and Recycling Act requires mattress manufacturers to create a statewide recycling program for mattresses and box springs discarded in the State. California's Department of Resources Recycling and Recovery (CalRecycle) has certified Mattress Recycling Council to develop and administer the program known as Bye Bye Mattress. Mattress Recycling Council funds its California activities through a \$10.50 per unit recycling fee collected from consumers when they buy a mattress or box spring.	County Unincorporated Communities
<b>OURCOUNTY SUSTAINABILITY PLAN</b>	The Board adopted the OurCounty Sustainability Plan in August 2019. OurCounty is organized around 12 goals that describe the shared vision for a sustainable County. The plan identifies lead County entities and partners who are required to implement specific actions to bring these 12 goals to fruition.	Regional/Countywide
<b>PHARMACEUTICALS</b>	Senate Bill 212 is a statewide stewardship program for manufacturers and distributors of pharmaceuticals and sharps waste to create, finance, and manage the safe and proper collection and disposal of unused pharmaceuticals and sharps. The stewardship program upon approval by CalRecycle would require a minimum of at least 1 drug collection site for every 50,000 residents or up to 5 per county, provide a drug collection bin for any host, such as a pharmacy who wants to be a collection site.	Regional/Countywide

## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>PLASTIC BAG BAN</b>	An ordinance banning single-use plastic carryout bags at stores in the County unincorporated areas, while requiring they charge 10 cents for each paper carryout bag sold to a customer. The 10 cent charge on paper bags is not subject to State sales tax and will be retained by stores for use in complying with the ordinance. The California legislature passed a statewide bag ban in 2014, and on November 8, 2016, California voters approved Proposition 67, to implement the statewide Single-Use Carryout Bag Ban. Most grocery stores, retail stores with a pharmacy, convenience stores, food marts, and liquor stores are no longer allowed to provide single-use plastic carryout bags to their customers. Instead, these stores may provide a reusable grocery bag or recycled paper bag to a customer at the point of sale at a charge of at least 10 cents.	County Unincorporated Communities
<b>RECYCLING MARKET DEVELOPMENT ZONE</b>	Combines recycling with economic development to fuel new businesses, expand existing ones, create jobs, and divert waste from landfills. It also provides business and technical assistance, product marketing, and financial assistance to businesses that manufacture a recycled-content product or process materials for recycling. Manufacturing or processing must occur within the Recycling Market Development Zone. Developed by CalRecycle in partnership with local jurisdictions.	Regional/Countywide
<b>RESIDENTIAL RECYCLING</b>	Educates the community on the importance of reducing the amount of waste created and provides residents recycling tips and resources.	County Unincorporated Communities



## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>SCHOOL SOURCE REDUCTION PROGRAMS</b>	Provides guidance to schools Countywide to encourage implementing recycling programs on campus and youth education programs to teach students about recycling and waste reduction.	County Unincorporated Communities
<b>SCRAP METAL</b>	PDC and Men's Central Jail: recycle scrap metal, such as tin, copper, and aluminum. Various County Agencies/Departments (Fire, Public Health, Public Works and Sheriff) recycle scrap metal through County-approved vendors. Public Works recycles scrap metal collected from public road rights-of-ways, fleet operations, and operational services. Under Project Isaiah, County Sheriff's Department and other law enforcement agencies recycle confiscated weapons into rebar.	County Unincorporated Communities
<b>SHARPS</b>	Senate Bill 212 established a statewide stewardship program for manufacturers and distributors of pharmaceuticals and sharps waste to manage the safe and proper collection and disposal of unused pharmaceuticals and sharps by providing a safe return container and mail-back kit at the point of sale for all sharps. This includes home-generated sharps waste, such as hypodermic needles, pen needles, intravenous needles, lancets, and other devices that are used to penetrate the skin for the delivery of medications. In addition, State approved containers are distributed to elderly and disabled residents.	Regional/Countywide
<b>SHERIFF/ PUBLIC WORKS COMPOSTING PILOT</b>	PDC green waste and food waste is composted and used as a soil amendment for the PDC farm. This reduces waste going to landfills and the transportation costs and dump fees.	County Operations

## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>SINGLE-USE PLASTICS</b>	In 2018, the County adopted a plastic straw and stirrer ordinance, prohibiting all food service businesses within unincorporated areas and at County operations from automatically providing single-use plastic straws or stirrers, unless requested by the customer. In 2019, the Board directed the Chief Sustainability Office and Public Works to draft a recommended ordinance to reduce the use of single-use plastics in unincorporated County, including reducing and/or eliminating the use of single-use plastic food service ware and ensuring that materials used for disposable products are recyclable or compostable.	County Unincorporated Communities/County Operations
<b>SMART BUSINESS RECYCLING PROGRAM</b>	Provides resources to help businesses reduce, recycle, and properly manage the waste they generate. Business Recycling Consultants provide free consultations to businesses located in unincorporated communities to assist them in implementing or expanding their waste prevention and recycling efforts.	County Unincorporated Communities
<b>SMART GARDENING PROGRAM</b>	Provides education on smart gardening practices, including backyard composting, worm composting, and, grass recycling, in efforts to reduce organic waste.	Regional/Countywide
<b>SOLID WASTE INFORMATION MANAGEMENT SYSTEM</b>	Compiles disposal data collected from solid waste enterprises within the County.	Regional/Countywide



## APPENDIX B: Existing Waste Diversion Efforts and County Programs

PROGRAM AREA	DESCRIPTION	FOCUS AREA
<b>SUSTAINABLE PAVEMENT PROGRAM</b>	Public Works has developed a more sustainable and cost-effective program for pavement preservation, rehabilitation, and reconstruction of its road network. This approach focuses on addressing roads that are in good condition first (where base and sub-grade replacement are not required), incorporating materials from recycled tires and aggregates from existing pavement and modifying the existing materials in-place by also adding cement to the base and sub-grade to improve its strength. Since 2009, Public Works has completed 165 projects utilizing sustainable treatments. These projects have resulted in very significant reductions in energy usage, greenhouse gas emissions, landfill deposition, and cost.	County Unincorporated Communities
<b>TIRE RECYCLING PROGRAM</b>	Conducts waste tire collection events and promotes practical uses for recycled tires.	Regional/Countywide
<b>URBAN GREENING PROGRAM</b>	Promotes sustainable landscapes within inner-city areas through the transformation of land into xeriscaping, planted trees, and other environmentally sensitive features.	County Unincorporated Communities
<b>YOUTH EDUCATION</b>	Programs that reach out to elementary and secondary school students to teach them about helping the environment through presentations and encourages them to make a difference in their local environment by creating campus eco-projects. It also provides development training and personalized support for schoolteachers, including resource guides and lesson plans.	Regional/Countywide

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
<b>STRATEGY 1: Programs and Services</b>		
<b>INITIATIVE 1A: INSTITUTIONALIZE WASTE PREVENTION AND SOURCE REDUCTION</b>		
1	Develop, implement, and enforce policies for certain materials, such as bans, restrictions, or ordinances (e.g., plastics, single-use items, and organic waste).	M
2	Develop model purchasing guides/policies for schools, businesses, cities, and County/city facilities focusing on reducing toxics, packaging, and single-use items.	M
3	Establish stakeholder subcommittees to develop new approaches for source reduction by residents and businesses.	M
4	Develop and circulate purchasing toolkits to promote residents to purchase only the food needed to prepare meals to reduce food waste.	M
5	Develop and circulate toolkits to promote paperless office practices for office and telework work locations.	M
6	Develop and circulate toolkits to residents to promote the reuse of household items instead of using single-use items (e.g., cloth towels vs. paper towels, reusable commuter mugs vs. paper cups and coffee sleeves).	M
7	Develop and circulate toolkits to residents to promote the environmental benefits of donating clothes and other textiles that they no longer need and/or use.	M
8	Support and develop reuse programs (e.g., redemption fees, repair cafes, material exchange, Bring Your Own).	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
<b>INITIATIVE 1B: ADVOCATE FOR EXTENDED PRODUCER AND MANUFACTURER RESPONSIBILITY (EPR)</b>		
1	Support Extended Producer Responsibility (e.g., ordinances, legal requirements, incentives).	C
2	Support voluntary or mandatory take-back initiatives for problematic products and packaging.	M
<b>INITIATIVE 1C: MAKE SUSTAINABILITY EASY AND DISCOURAGE "TRASHING"</b>		
1	Develop incentives for diverting waste to non-disposal alternatives.	L
2	Develop "Tech Lab" incubators for reuse/recycle enterprise development.	M
3	Evaluate alternative collection methods (e.g., collection frequency, size of bins, pay as you throw, true cost programs).	C
4	Create a mechanism to monitor and enforce recycling.	M
5	Increase recycling receptacles in public venues and business corridors with clear signage and messaging.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
<b>INITIATIVE 1D: RECOVER ORGANIC MATERIALS, INCLUDING FOOD WASTE, TO THE HIGHEST AND BEST USES</b>		
1	Identify and partner with large food waste generators and work with local cities for food recovery and donation.	M
2	Establish network of community gardens and facilities for composting food/yard waste, using resources, such as the Smart Gardening program.	M
3	Develop organic waste collection and diversion programs in collaboration with waste haulers and other stakeholders while ensuring proper education of the public and businesses.	L
<b>INITIATIVE 1E: MAXIMIZE DIVERSION OF CONSTRUCTION AND DEMOLITION (C&amp;D) DEBRIS</b>		
1	Promote deconstruction and the use of salvaged materials via incentives and/or the development of a deconstruction services guide and support of Resources Recovery Centers.	M
2	Provide incentives for using durable building materials/products with long lifespans and minimal maintenance requirements.	M
3	Support historic preservation, "adaptive reuse," in building standards and the remodeling/repurposing of still functional buildings.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
INITIATIVE 1F: MAXIMIZE DIVERSION OF HOUSEHOLD HAZARDOUS WASTE (HHW) AND ELECTRONIC WASTE (E-WASTE)		
1	Identify incentives to encourage the use of environmentally preferable items.	M
2	Provide education on alternative products to eliminate or reduce HHW.	M
3	Engage residents, community-based organizations, and stakeholders during the planning process for new permanent HHW/E-waste collection centers.	M
4	Establish reuse centers for reusable products dropped off at permanent centers to be made available to the public.	M
5	Increase number of permanent HHW/E-Waste collection centers and expand hours/days of operation for current centers.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
INITIATIVE 1G: COMMUNITY ENGAGEMENT/OUTREACH AND EDUCATION		
1	Develop a standardized and consistent communication plan promoting the 4 R's (Reduce, Reuse, Recycle, and Rethink) based on demographics, resources, and commercial and industrial businesses in targeted areas.	M
2	Incorporate multiple languages (Arabic, Armenian, Chinese, Farsi, Korean, Spanish, Tagalog, Vietnamese, etc.) in educational and outreach efforts, as needed.	C
3	Communicate waste reduction messages in a culturally sensitive manner to County residents, businesses, environmental organizations, and other stakeholder groups.	C
4	Expand communication through social media.	C
5	Form a Youth Advisory Board to get feedback directly from our younger stakeholders.	C
6	Incorporate incentives, awards, contests, etc. to encourage all stakeholders to participate in sustainability programs.	M
7	Educate businesses and government facilities on recycling programs that may help reduce their disposal costs and increase their recycling rate.	M
8	Host planning workshops with waste haulers, businesses, multifamily complex owners, and other stakeholders for feedback and collaboration.	M
9	Partner with town councils, homeowners' associations, chambers of commerce, faith-based organizations, community-based organizations, conservation corps, local community colleges, etc. to get messaging out.	S

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

### REGIONAL/COUNTYWIDE

### Timeframe

#### STRATEGY 2: Measuring Results

##### INITIATIVE 2A: WASTE SECTOR ASSESSMENT

1	Conduct regular Waste Characterization Studies to determine which material types to target for diversion and share results with stakeholders.	M
2	Develop an ordinance or similar mechanism to require solid waste facilities to report various information to local jurisdictions.	S
3	Conduct surveys to determine program effectiveness and solicit feedback.	C

##### INITIATIVE 2B: EVALUATE AND MEASURE THE SUCCESS OF EXISTING PROGRAMS AND CONSIDER NEW PROGRAMS

1	Establish benchmarks tied to waste reduction goals--generation, disposal, recycling, and other diversion.	M
2	Create a framework/template/tools to monitor and measure the success of new and existing source-reduction, recycling, and reuse programs.	M
3	Analyze the lifecycle effects of nonrecyclable, single-use materials (e.g., plastics and packaging) and recycled materials.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
<b>INITIATIVE 2C: ENSURE SUSTAINABLE FUNDING AND ALIGNMENT OF INCENTIVES WITH PROGRAM GOALS</b>		
1	Review program expenditures and revenues on a regular basis to ensure efficiencies and sustainable funding.	C
2	Identify options for program funding adjustments that incentivize recycling/reusing and fund diversion programs.	C
3	Explore grant funding and loans to augment program funding.	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

### REGIONAL/COUNTYWIDE

### Timeframe

#### STRATEGY 3: Facilities and Infrastructure

#### INITIATIVE 3A: DEVELOP SUSTAINABLE WASTE MANAGEMENT FACILITIES, INCLUDING CONVERSION TECHNOLOGIES AND INTEGRATED MATERIALS RECOVERY FACILITIES

1	<p>Define clear permitting pathways and development standards for new or modified Sustainable Waste Management Facilities that minimize impacts and maximize benefits to the communities in which they are located. Such facilities recover or convert waste into renewable, negative-carbon fuels, electricity, and other useful products.</p> <ul style="list-style-type: none"> <li>• Engage with community-based organizations throughout the development of a project and the permitting process to ensure adequate review and comment by the public.</li> <li>• Seek and gain State level support and funding for sustainable waste management facilities.</li> <li>• Require new facilities to provide community amenities such as education and recreation centers.</li> <li>• Support or increase incentives for the end products of conversion technology.</li> </ul>	L
2	Sponsor/support legislation to encourage the development of conversion technologies and the use of their end products.	C
3	Develop guidelines for using recovered products from sustainable waste management facilities.	M
4	Establish partnerships, including with community organizations, to develop educational pilot projects to demonstrate the benefits, feasibility, and safety of sustainable waste management technologies.	C
5	Establish incentives to level the cost differential between sustainable waste management facilities and landfills and incentivize waste haulers to direct waste to such facilities.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
INITIATIVE 3B: ORGANIC WASTE PROCESSING INFRASTRUCTURE		
1	Sponsor/support legislation to fund the development of organic waste processing infrastructure and promote markets for their end products.	M
2	Explore grant funding and loans to fund organic waste processing infrastructure.	C
3	Encourage the development of organic waste diversion facilities, including biomass conversion, composting, and anaerobic digestion of organic materials.	C
4	Explore public-private partnerships for infrastructure development that could be replicated by other jurisdictions to close the regional infrastructure gap.	M
5	Engage residents, community-based organizations, and stakeholders during planning and before development of new organic waste diversion facilities.	C
6	Develop and implement pilot organic waste management programs.	M
7	Encourage opportunities for co-digestion of organic materials at wastewater treatment plants.	C
8	Explore opportunities to develop micro-composters or digesters at large community venues/facilities.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
INITIATIVE 3C: LOCAL GREEN BUSINESS & MARKET DEVELOPMENT		
1	Promote and incentivize the use of locally generated reusables and recycled materials.	L
2	Support minimum recycled content policies.	C
3	Promote the use of products from processing organic waste (e.g., fuels, compost, mulch, fertilizer).	L
4	Support product certification standards and statewide definitions for recyclability and compostability along with proper labeling requirements.	M
5	Expand the Recycling Market Development Zone (RMDZ) to include additional interested cities in Los Angeles County.	M
6	Seek out and promote grant funding for green businesses.	C
7	Seek and encourage new green businesses and remanufacturing facilities to locate in Los Angeles County.	C
8	Create a toolkit to circulate through local Chamber of Commerce chapters and other business organizations to promote the RMDZ program to businesses and entrepreneurs to encourage equitable community-based waste reduction operations.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

REGIONAL/COUNTYWIDE		Timeframe
<b>INITIATIVE 3D: RESOURCE RECOVERY CENTERS</b>		
1	Facilitate the development of Resource Recovery Centers at sustainable waste management facilities, transfer stations, and landfills in the County to promote waste reduction in a convenient manner.	M
<b>INITIATIVE 3E: MAXIMIZE ALIGNMENT WITH STATE AND COUNTY GOALS</b>		
1	Coordinate with State Agencies to address conflicting regulations.	C
2	Identify opportunities to achieve shared goals (such as using biogas to reduce GHG emissions and creating a market for organic waste products while supporting electrification).	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

### COUNTY UNINCORPORATED COMMUNITIES

### Timeframe

#### STRATEGY 1: Programs and Services

#### INITIATIVE 1A: INSTITUTIONALIZE WASTE PREVENTION AND SOURCE REDUCTION

1	Develop, implement, and enforce policies for certain materials, such as bans, restrictions, or ordinances (e.g., plastics, single-use items, and organic waste).	M
2	Develop model purchasing guides/policies for schools, businesses, cities, and County/city facilities focusing on reducing toxics, packaging, and single-use items.	M
3	Establish stakeholder subcommittees to develop new approaches for source reduction by residents and businesses.	M
4	Develop and circulate purchasing toolkits to promote residents to purchase only the food needed to prepare meals to reduce food waste.	M
5	Develop and circulate toolkits to promote paperless office practices for office and telework work locations.	M
6	Develop and circulate toolkits to residents to promote the reuse of household items instead of using single-use items (e.g., cloth towels vs. paper towels, reusable commuter mugs vs. paper cups and coffee sleeves).	M
7	Develop and circulate toolkits to residents to promote the environmental benefits of donating clothes and other textiles that they no longer need and/or use.	M
8	Support and develop reuse programs (e.g., redemption fees, repair cafes, material exchange, Bring Your Own).	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
<b>INITIATIVE 1B: ADVOCATE FOR EXTENDED PRODUCER AND MANUFACTURER RESPONSIBILITY (EPR)</b>		
1	Support Extended Producer Responsibility (e.g., ordinances, legal requirements, incentives).	C
2	Support voluntary or mandatory take-back initiatives for problematic products and packaging.	M
<b>INITIATIVE 1C: MAKE SUSTAINABILITY EASY AND DISCOURAGE "TRASHING"</b>		
1	Develop incentives for diverting waste to non-disposal alternatives.	L
2	Develop "Tech Lab" incubators for reuse/recycle enterprise development.	M
3	Evaluate alternative collection methods (e.g., collection frequency, size of bins, pay as you throw, true cost programs).	C
4	Create a mechanism to monitor and enforce recycling.	M
5	Increase recycling receptacles in public venues and business corridors with clear signage and messaging.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
<b>INITIATIVE 1D: RECOVER ORGANIC WASTE, INCLUDING FOOD WASTE, TO THE HIGHEST AND BEST USES</b>		
1	Identify and partner with large food waste generators and work with local cities for food recovery and donation.	M
2	Establish network of community gardens and facilities for composting food/yard waste, using resources, such as the Smart Gardening program.	M
3	Develop organic waste collection and diversion programs in collaboration with waste haulers and other stakeholders while ensuring proper education of the public and businesses.	L
<b>INITIATIVE 1E: MAXIMIZE DIVERSION OF CONSTRUCTION AND DEMOLITION (C&amp;D) DEBRIS</b>		
1	Revise County's C&D Recycling and Reuse Ordinance to incorporate green building standards and increase diversion requirements and make available to other jurisdictions for reference.	S
2	Promote deconstruction and the use of salvaged materials via incentives and/or the development of a deconstruction services guide and support of Resources Recovery Centers.	M
3	Provide incentives for using durable building materials/products with long lifespans and minimal maintenance requirements.	M
4	Support historic preservation, "adaptive reuse," in building standards and the remodeling/repurposing of still functional buildings.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
INITIATIVE 1F: MAXIMIZE DIVERSION OF HOUSEHOLD HAZARDOUS WASTE (HHW) AND ELECTRONIC WASTE (E-WASTE)		
1	Identify incentives to encourage the use of environmentally preferable items.	M
2	Provide education on alternative products to eliminate or reduce HHW.	M
3	Engage residents, community-based organizations, and stakeholders during the planning process for new permanent HHW/E-waste collection centers.	M
4	Establish reuse centers for reusable products dropped off at permanent centers to be made available to the public.	M
5	Increase number of permanent HHW/E-Waste collection centers and expand hours/days of operation for current centers.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
INITIATIVE 1G: COMMUNITY ENGAGEMENT/OUTREACH AND EDUCATION		
1	Develop a standardized and consistent communication plan promoting the 4 R's (Reduce, Reuse, Recycle, and Rethink) based on demographics, resources, and commercial and industrial businesses in targeted areas.	M
2	Incorporate multiple languages (Arabic, Armenian, Chinese, Farsi, Korean, Spanish, Tagalog, Vietnamese, etc.) in educational and outreach efforts, as needed.	C
3	Communicate waste reduction messages in a culturally sensitive manner to County residents, businesses, environmental organizations, and other stakeholder groups.	C
4	Expand communication through social media.	C
5	Form a Youth Advisory Board to get feedback directly from our younger stakeholders.	C
6	Incorporate incentives, awards, contests, etc. to encourage all stakeholders to participate in sustainability programs.	M
7	Educate businesses and government facilities on recycling programs that may help reduce their disposal costs and increase their recycling rate.	M
8	Host planning workshops with waste haulers, businesses, multi-family complex owners, and other stakeholders for feedback and collaboration.	M
9	Partner with town councils, homeowners' associations, chambers of commerce, faith-based organizations, community-based organizations, conservation corps, local community colleges, etc. to get messaging out.	S

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
<b>INITIATIVE 1H: EMERGENCY MANAGEMENT/MASS DEBRIS MANAGEMENT PLAN</b>		
1	Update the Unincorporated Area Mass Debris Management Plan to include a Private Property Debris Removal Addendum to maximize diversion of materials following emergencies and disasters.	S
<b>STRATEGY 2: Measuring Results</b>		
<b>INITIATIVE 2A: WASTE SECTOR ASSESSMENT</b>		
1	Conduct regular Waste Characterization Studies to determine which material types to target for diversion and share results with stakeholders.	M
2	Develop an ordinance or similar mechanism to require solid waste facilities to report various information to local jurisdictions.	S
3	Conduct surveys to determine program effectiveness and solicit feedback.	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
<b>INITIATIVE 2B: EVALUATE AND MEASURE THE SUCCESS OF EXISTING PROGRAMS AND CONSIDER NEW PROGRAMS</b>		
1	Establish benchmarks tied to waste reduction goals--generation, disposal, recycling, and other diversion.	M
2	Create a framework/template/tools to monitor and measure the success of new and existing source reduction, recycling, and reuse programs.	M
3	Analyze the lifecycle effects of non-recyclable, single-use materials (e.g., plastics and packaging) and recycled materials.	M
<b>INITIATIVE 2C: ENSURE SUSTAINABLE FUNDING AND ALIGNMENT OF INCENTIVES WITH PROGRAM GOALS</b>		
1	Review program expenditures and revenues on a regular basis to ensure efficiencies and sustainable funding.	C
2	Identify options for program funding adjustments that incentivize recycling/reusing and fund diversion programs.	C
3	Evaluate the financial impact of scavenging on recycling programs and identify options to reduce scavenging.	S
4	Explore grant funding and loans to augment program funding.	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

### COUNTY UNINCORPORATED COMMUNITIES

### Timeframe

#### STRATEGY 3: Facilities and Infrastructure

#### INITIATIVE 3A: DEVELOP SUSTAINABLE WASTE MANAGEMENT FACILITIES, INCLUDING CONVERSION TECHNOLOGIES AND INTEGRATED MATERIALS RECOVERY FACILITIES

1	<p>Define clear permitting pathways and development standards for new or modified Sustainable Waste Management Facilities that minimize impacts and maximize benefits to the communities in which they are located. Such facilities recover or convert waste into renewable, negative-carbon fuels, electricity, and other useful products.</p> <ul style="list-style-type: none"> <li>• Engage with community-based organizations throughout the development of a project and the permitting process to ensure adequate review and comment by the public.</li> <li>• Seek and gain State level support and funding for sustainable waste management facilities.</li> <li>• Require new facilities to provide community amenities such as education and recreation centers.</li> <li>• Support or increase incentives for the end products of conversion technology.</li> </ul>	L
2	Sponsor/support legislation to encourage the development of conversion technologies and the use of their end products.	C
3	Develop guidelines for using recovered products from sustainable waste management facilities.	M
4	Establish partnerships, including with community organizations, to develop educational pilot projects to demonstrate the benefits, feasibility, and safety of sustainable waste management technologies.	C
5	Establish incentives to level the cost differential between sustainable waste management facilities and landfills and incentivize waste haulers to direct waste to such facilities.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
INITIATIVE 3B: ORGANIC WASTE PROCESSING INFRASTRUCTURE		
1	Sponsor/support legislation to fund the development of organic waste processing infrastructure and promote markets for their end products.	M
2	Explore grant funding and loans to fund organic waste processing infrastructure.	C
3	Encourage the development of organic waste diversion facilities, including biomass conversion, composting, and anaerobic digestion of organic materials.	C
4	Explore public-private partnerships for infrastructure development that could be replicated by other jurisdictions to close the regional infrastructure gap.	M
5	Engage residents, community-based organizations, and stakeholders during planning and before development of new organic waste diversion facilities.	C
6	Develop and implement pilot organic waste management programs.	M
7	Encourage opportunities for co-digestion of organic materials at wastewater treatment plants.	C
8	Explore opportunities to develop micro-composters or digesters at large community venues/facilities.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
INITIATIVE 3C: LOCAL GREEN BUSINESS & MARKET DEVELOPMENT		
1	Promote and incentivize the use of locally generated reusables and recycled materials.	L
2	Support minimum recycled content policies.	C
3	Promote the use of products from processing organic waste (e.g., fuels, compost, mulch, fertilizer).	L
4	Support product certification standards and statewide definitions for recyclability and compostability along with proper labeling requirements.	M
5	Expand the Recycling Market Development Zone (RMDZ) to include additional interested cities in Los Angeles County.	M
6	Seek out and promote grant funding for green businesses.	C
7	Seek and encourage new green businesses and remanufacturing facilities to locate in Los Angeles County.	C
8	Create a toolkit to circulate through local Chamber of Commerce chapters and other business organizations to promote the RMDZ program to businesses and entrepreneurs to encourage equitable community-based waste reduction operations.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY UNINCORPORATED COMMUNITIES		Timeframe
<b>INITIATIVE 3D: RESOURCE RECOVERY CENTERS</b>		
1	Facilitate the development of Resource Recovery Centers at sustainable waste management facilities, transfer stations, and landfills in the County to promote waste reduction in a convenient manner.	M
<b>INITIATIVE 3E: MAXIMIZE ALIGNMENT WITH STATE AND COUNTY GOALS</b>		
1	Coordinate with State Agencies to address conflicting regulations.	C
2	Identify opportunities to achieve shared goals (such as using biogas to reduce GHG emissions and creating a market for organic waste products while supporting electrification).	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
<b>STRATEGY 1: Programs and Services</b>		
<b>INITIATIVE 1A: INSTITUTIONALIZE WASTE PREVENTION AND SOURCE REDUCTION</b>		
1	Develop, implement, and enforce policies for certain materials, such as bans, restrictions, or ordinances (e.g., plastics, single-use items, and organic waste).	M
2	Develop model purchasing guides/policies for schools, businesses, cities, and County/city facilities focusing on reducing toxics, packaging, and single-use items.	M
3	Develop and implement policies for County convenings to be zero waste events.	M
4	Establish stakeholder subcommittees to develop new approaches for source reduction.	M
5	Develop and circulate toolkits to promote paperless office practices for office and telework work locations.	M
6	Develop and circulate toolkits to employees to promote the environmental benefits of donating clothes and other textiles that they no longer need and/or use.	M
7	Support and develop reuse programs (e.g., redemption fees, repair cafes, material exchange, Bring Your Own).	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
<b>INITIATIVE 1B: ADVOCATE FOR EXTENDED PRODUCER AND MANUFACTURER RESPONSIBILITY (EPR)</b>		
1	Support Extended Producer Responsibility (e.g., ordinances, legal requirements, incentives).	C
<b>INITIATIVE 1C: MAKE SUSTAINABILITY EASY AND DISCOURAGE "TRASHING"</b>		
1	Develop incentives for diverting waste to non-disposal alternatives.	L
2	Create a mechanism to monitor and enforce recycling.	M
<b>INITIATIVE 1D: RECOVER ORGANIC MATERIALS, INCLUDING FOOD WASTE, TO THE HIGHEST AND BEST USES</b>		
1	Identify and partner with large food waste generators and work with local cities for food recovery and donation.	M
2	Establish network of community gardens and facilities for composting food/yard waste, using resources, such as the Smart Gardening program.	M
3	Develop organic waste collection and diversion programs in collaboration with waste haulers and other stakeholders while ensuring proper education of the public and businesses.	L

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
<b>INITIATIVE 1E: MAXIMIZE DIVERSION OF CONSTRUCTION AND DEMOLITION (C&amp;D) DEBRIS</b>		
1	Provide incentives for using durable building materials/products with long lifespans and minimal maintenance requirements.	M
<b>INITIATIVE 1F: MAXIMIZE DIVERSION OF HOUSEHOLD HAZARDOUS WASTE (HHW) AND ELECTRONIC WASTE (E-WASTE)</b>		
1	Identify incentives to encourage the use of environmentally preferable items.	M
2	Provide education on alternative products to eliminate or reduce HHW.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
INITIATIVE 1G: COMMUNITY ENGAGEMENT/OUTREACH AND EDUCATION		
1	Develop a standardized and consistent communication plan promoting the 4 R's (Reduce, Reuse, Recycle, and Rethink) based on demographics, resources, and commercial and industrial businesses in targeted areas.	M
2	Communicate waste reduction messages in a culturally sensitive manner to County residents, businesses, environmental organizations, and other stakeholder groups.	C
3	Expand communication through social media.	C
4	Incorporate incentives, awards, contests, etc., to encourage all stakeholders to participate in sustainability programs.	M
5	Educate businesses and government facilities on recycling programs that may help reduce their disposal costs and increase their recycling rate.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

### COUNTY OPERATIONS

### Timeframe

#### STRATEGY 2: Measuring Results

##### INITIATIVE 2A: WASTE SECTOR ASSESSMENT

1	Conduct regular Waste Characterization Studies to determine which material types to target for diversion and share results with stakeholders.	M
2	Conduct surveys to determine program effectiveness and solicit feedback.	C

##### INITIATIVE 2B: EVALUATE AND MEASURE THE SUCCESS OF EXISTING PROGRAMS AND CONSIDER NEW PROGRAMS

1	Establish benchmarks tied to waste reduction goals--generation, disposal, recycling, and other diversion.	M
2	Create a framework/template/tools to monitor and measure the success of new and existing source-reduction, recycling, and reuse programs.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
<b>INITIATIVE 2C: ENSURE SUSTAINABLE FUNDING AND ALIGNMENT OF INCENTIVES WITH PROGRAM GOALS</b>		
1	Review program expenditures and revenues on a regular basis to ensure efficiencies and sustainable funding.	C
2	Identify options for program funding adjustments that incentivize recycling/reusing and fund diversion programs.	C
3	Evaluate the financial impact of scavenging on recycling programs and identify options to reduce scavenging.	S
4	Explore grant funding and loans to augment program funding.	C
<b>STRATEGY 3: Facilities and Infrastructure</b>		
<b>INITIATIVE 3A: DEVELOP SUSTAINABLE WASTE MANAGEMENT FACILITIES, INCLUDING CONVERSION TECHNOLOGIES AND INTEGRATED MATERIALS RECOVERY FACILITIES</b>		
1	Establish partnerships, including with community organizations, to develop educational pilot projects to demonstrate the benefits, feasibility, and safety of sustainable waste management technologies.	C

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
INITIATIVE 3B: ORGANIC WASTE PROCESSING INFRASTRUCTURE		
1	Explore grant funding and loans to fund organic waste processing infrastructure.	C
2	Encourage the development of organic waste diversion, including biomass conversion, composting and anaerobic digestion of organic materials.	C
3	Explore public-private partnerships for infrastructure development that could be replicated by other jurisdictions to close the regional infrastructure gap.	M
4	Engage residents, community-based organizations, and stakeholders during planning and before development of new organic waste diversion.	C
5	Develop and implement pilot organic waste management programs.	M
6	Encourage opportunities for co-digestion of organic materials at wastewater treatment plants.	C
7	Explore opportunities to develop micro-composters or digesters at large community venues/facilities.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*



## APPENDIX C: Strategies and Initiatives by Focus Area

COUNTY OPERATIONS		Timeframe
INITIATIVE 3C: LOCAL GREEN BUSINESS & MARKET DEVELOPMENT		
1	Promote and incentivize the use of locally generated reusables and recycled materials.	L
2	Support minimum recycled content policies.	C
3	Promote the use of products from processing organic waste (e.g., fuels, compost, mulch, fertilizer).	L
4	Support product certification standards and statewide definitions for recyclability and compostability along with proper labeling requirements.	M

*Time Frame: Continuous (C) ongoing; Short Term (S) 0-2 years; Mid Term (M) 2-6 years; Long Term (L) 6 years +*

Los Angeles County

# **ZERO WASTE**

Plan

