Version Date: 3/6/24

CITY OF LONG BEACH ZERO WASTE PLAN

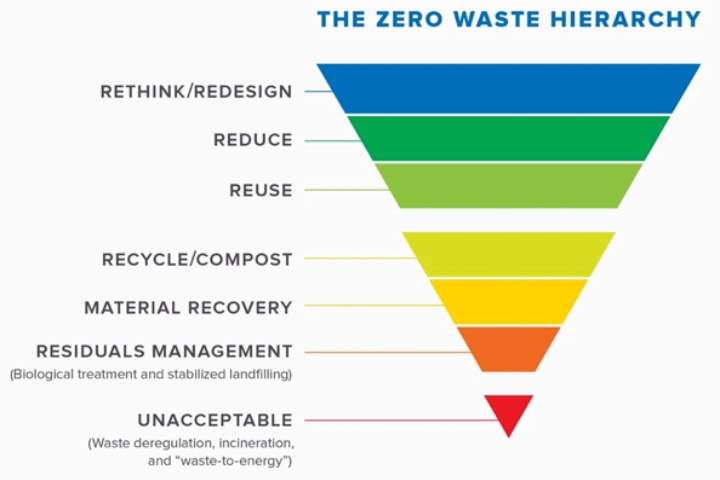
What is Zero Waste?

The internationally peer-reviewed definition has been curated by the Zero Waste International Alliance:

> Zero Waste is the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.[1]

The Zero Waste hierarchy describes a progression of policies, programs, and infrastructure to support the development of a Zero Waste system, from the highest and best to lowest use of materials.

The components of the hierarchy are:



- Rethink/Redesign – Design and purchase products/materials from reused, recycled or sustainably-harvested renewable, non-toxic materials to be durable, repairable, reusable, fully recyclable or compostable, and easily disassembled.
- Reduce – Minimize quantity and toxicity of materials used.
- Reuse – Maximize reuse of materials and products.
- Recycle/Compost – Support and expand systems to keep materials in their original production loop and to protect the full usefulness of the materials.
- Materials Recovery – Maximize materials recovery from mixed discards and research purposes after extensive source separation.
- Residuals Management – Examine materials that remain and use this information to refine the systems to rethink, reduce, reuse, and recycle in order to prevent further discards. Biologically stabilize materials prior to landfilling.
- Unacceptable – Incineration and other "waste-to-energy" or "waste-to-fuels" schemes.

[1] Zero Waste International Alliance: https://zwia.org/zero-waste-definition/

A Zero Waste approach recognizes that there is no waste in nature, and all materials cycle through ecological systems. With each material considered, we make useful what is considered unusable. Waste is a nonrenewable resource when it is burned, but new opportunities can emerge with a bit more thought, creativity, and care.

Executive Summary

Long Beach residents are ready for Zero Waste. A bilingual community-led process was held for Long Beach residents over five sessions in the Summer of 2021 which culminated into a Zero Waste Environmental Justice Summit in October 2021 and additional visioning sessions were hosted in Fall 2022. The bulk of the sessions focused on policies, programs and infrastructure that could be transformed into opportunities for new jobs, and to change the landscape of Long Beach municipal solid waste management.

Residents were curious to learn about how the waste system operates and many were surprised to learn that most of the trash was burned in an incinerator on terminal island. Long Beach has a tremendous opportunity to become a leading model for Zero Waste in the Southern California region -- an opportunity to create green jobs, cleaner air, and a healthier environment for its residents.

Below is a table of Zero Waste Initiatives that summarize the impacts of Policies, Programs, and Infrastructure alternatives and their calculated diversion and emissions reductions.

Zero Waste Initiatives	**Projected Diversion (tons)**	**Projected GHG Emissions Reduction (MTCO2e)**	**Policy, Program, Infrastructure**
1. Zero Waste Goal	3,215	(4,144)	Policy
2. Single-Use Packaging	900	(4,145)	Policy
3. Source Separated Recycling & Composting	29,981	(39,790)	Policy
4. Construction Debris Recycling Requirements	19,451	(25,650)	Policy
5. Prioritize Reuse	241	(1,235)	Program
6. Comprehensive Outreach & Education	80,377	(103,592)	Program
7. Universal Recycling & Compost Curbside Collection	25,013	(27,137)	Program
8. Food Waste Prevention / Food Surplus Donation	1,752	(70)	Program

Zero Waste Initiatives	Projected Diversion (tons)	Projected GHG Emissions Reduction (MTCO2e)	Policy, Program, Infrastructure
9. Convenient Collection of Toxics and Hard-to-Recycle Items	3,231	(6,309)	Program
10. Zero Waste Infrastructure (Resource Recovery Parks, Center for Hard to Recycle Materials, Building Materials Reuse Center)	5,192	(9,048)	Infrastructure
11. Zero Waste Stores	206	(550)	Infrastructure
12. Community Composting Hubs, Composting Facility	13,584	(140)	Program, Infrastructure
13. Washing Facilities	1,125	(4,734)	Infrastructure
14. Zero Waste Events	2,321	(4,102)	Program
15. System Change Through Art	3,215	(4,144)	Program
Total	**189,805**	**(243,790)**	**All**

Transition from Incineration Toward Zero Waste

The Southeast Resource Recovery Facility (SERRF) was the second of three Waste-to-Energy facilities to close in California. Community members in Long Beach are impacted by the cumulative impacts of pollution from cars, and ships at the Ports of Long Beach and Los Angeles, planes at the Long Beach Airport, oil refineries, petroleum pipelines, factories, and the incinerator. Incineration produces numerous chemical air pollutants through flue gasses that consist of dioxins, furans, sulfur dioxide, mercury and nitrogen oxides. Together these chemicals pose a health hazard to the West Long Beach and Wilmington community members.

The closure of SERFF on January 31st, 2024 follows the community vision that was developed by community members to advocate for Zero Waste. Moving Long Beach towards Zero Waste not only means the closure of the incinerator, it also means implementing strategies to reduce waste, develop reuse infrastructure and collection, recycling, and composting over landfilling. The spirit of SB 1383 is reflected in the title of the Short Lived Climate Pollutant Reduction Strategy, in recognition that the methane gasses produced in landfills are a major climate pollutant.

Economic Impacts

According to the US Energy Information Administration, incineration is the most expensive way to create energy, both in terms of operation and maintenance. Some host cities have

even gone bankrupt due to their local incinerators. Each year the City of Long Beach spends about $5-6 million to dispose of the ash at nearby landfills. In 2018, the Long Beach City Council and Covanta voted to spend a total of $13 million for needed repairs and upgrades at SERRF through 2024. If the city decides to extend the life of SERRF for an additional 15 years, the additional taxpayer funding required would total out to $40-60 million dollars. Furthermore, in the past few fiscal years the incinerator has been in the red - its expenses are much larger than the amount of revenue it's generating.

Health Impacts

The pollutants emitted by incinerators are highly toxic and have detrimental impacts on human health. Many of the products that are used on a daily basis contain toxic chemicals that become deeply concentrated in the remaining ash and are emitted into the air. Some of these dangerous pollutants include nitrogen oxides, sulfur dioxides, lead, dioxins and furans which impact the respiratory system, cardiovascular system, nervous system, and some of which can be cancer-causing. The incinerator is also an indirect source of pollution for refuse trucks that run on fossil fuels which have pollutants that have similar health impacts to those previously listed.

Environmental Impacts

In addition to harming human health, incinerators pollute the air, land, and water. Incineration has been described as an environmentally-friendly solution due to the energy that is created from burning waste. However, incineration is one of the most ineffective ways to create energy and generates large amounts of greenhouse gasses that contribute to climate change. In fact, incineration emits more carbon dioxide per unit of electricity than coal-fired power plants. Furthermore, burning materials means raw materials need to be extracted, manufactured, and distributed once again which continues a cycle of pollution and harm to surrounding communities, flora and fauna living next to these operations.

Impact of SERRF

The majority of the residential and commercial waste in Long Beach is sent to the Southeast Resource Recovery Facility (SERRF) owned by the City of Long Beach and Sanitation District of Los Angeles County, and operated by Covanta. About 79% of incinerators across the United States are located in environmental justice communities - meaning communities with a high percentage of people of color and that are predominantly low-income - this is true of the incinerator in Long Beach as well. SERRF is located on Terminal Island next to frontline, working class communities of color. Although incineration has been rebranded as "waste-to-energy" and is the second most widely used strategy after landfilling, it is an expensive, harmful practice to human and environmental health. For more information on the impact of SERRF, please read the Earthjustice report: Vestiges of Environmental Racism: Closing California's Last Two Municipal Waste Incinerators.

Stakeholder Engagement

Stakeholder outreach is a key component in the development of a Zero Waste plan.

Environmental justice and local community groups have been advocating and working toward a just transition to Zero Waste. From having intentional conversations about Zero Waste - what that looks like and how that addresses needs within their neighborhoods - to building resilient systems of care through community composting and more. Zero waste leadership in Long Beach is strong and together all stakeholders will make Zero Waste a reality.

A bilingual English and Spanish Zero Waste Vision Session series was held in the Summer of 2021 to give an overview of Zero Waste. Zero Waste 101 (6/17/21) gave an introduction to Zero Waste concepts. Zero Waste Vision session #1 (7/17/21) co-developed guiding principles that would help inform the development of policies, programs, and infrastructure initiatives. Zero Waste Vision Session #2 (7/29/21) went over Zero Waste policy and program examples in communities around the world. Zero Waste Vision Session #3 and #4 were combined to go over infrastructure examples and begin a vision for an implementation plan for Long Beach.

After these visioning sessions, a Zero Waste Environmental Justice Summit was held virtually to review the highlights and develop the outlines of a Zero Waste Plan by choosing Zero Waste Initiatives community members felt were most relevant to Long Beach.

AB 1857
After the vision sessions in Summer and Fall 2021, East Yard Communities for Environmental Justice collaborated with Valley Improvement Projects and Earth Justice to publish Vestiges of Environmental Racism, which provided an overview of the environmental and public health consequences of incineration in California. This report directly contributed to the campaign to pass AB 1857, which removed recycling diversion credits for waste-to-energy operations in the state.

Fall 2022
The Fall of 2022 followed-up the passage of AB 1857 legislation by revisiting the Zero Waste Guiding Principles, Policies, Programs, and Infrastructure initiatives co-developed by community members who participated in previous sessions. This culminated into the first in-person session to review and refine the Zero Waste Plan initiatives, with tens of attendees in Long Beach.

January 2024
Covanta and the City of Long Beach and LA Sanitation Districts decided to cease operations at the South East Resource Recovery Facility as of January 31st, 2024, citing AB 1857.

Zero Waste Guiding Principles

In reflecting on how burning waste in Long Beach burdens its communities of color with dioxins and furans, community members and groups gathered together to think through how Long Beach could move towards a regenerative future.

Guiding principles were created to inform the conceptual direction of the vision sessions and serve as a thematic framework to reimagine solid waste with racial justice in mind. It is recommended that whatever policies, programs, infrastructure, and implementation plans the community or city come up with follow these set of values so that incineration and landfilling of our collective waste should not burden any community, in Long Beach or anywhere else. A Zero Waste approach is a responsible public health strategy.

Session participants learned about Zero Waste Principles, with a firm understanding that reduction and reuse is key to eliminating a need for landfills and incinerators.

The guiding principles are:

1. Build Community Power
2. Focus on waste prevention
3. Promote meaningful inclusion (intergenerational, multiethnic, multilingual, interclass)
4. Require high labor standards and just transition
5. Ensure physical and language accessibility
6. Make Zero Waste strategies culturally appropriate
7. Prioritize community healing (clean up chemicals)
8. Support the solidarity economy (equitable approaches for system change and market change)
9. Ensure accountability and transparency to the community
10. Early education in schools
11. System change through art

Background

Long Beach is located in the southern portion of Los Angeles County in Southern California. It is home to the Port of Long Beach, which, together with the Port of Los Angeles, imports approximately 40% of all imported goods in the United States. The Southeast Resource Recovery Facility (SERRF) operates on terminal island and is one of two remaining waste-to-energy facilities in the State.

The City of Long Beach has been a leader in Zero Waste. The research of Captain Charles Moore and Algalita was one of the first to discover the Great Pacific Garbage Patch, an area twice the size of Texas contaminated with plastic pollution. Algalita helped launch the movement to reduce single-use plastics and works to identify sources of plastic pollution in

the environment to inform policy efforts to prevent plastic pollution. Other notable organizations that demonstrate Zero Waste leadership are Long Beach Community Compost, Bring Your Own Long Beach, Ethikli sustainable packaging. Groups represented in the visioning sessions included Long Beach Gray Panthers, Long Beach Environmental Alliance, Sierra Club Long Beach, and the Long Beach Alliance for Children with Asthma. The valuable feedback from these groups and individual community members informed the guiding principles listed below.

Current Services

The City of Long Beach already has a number of policies, programs, and infrastructure that already meet or have a substantive role in the implementation of state mandates.

These include:

Local Ordinances

- A Construction & Demolition (C&D) Debris Recycling Program (2007) that requires a minimum of 65% diversion of new construction and/or demolition projects
- A carry out plastic shopping bag ban (2012)
- An Expanded Polystyrene (EPS) Ordinance (2018) that prohibits the sale of prepared food in single-use expanded polystyrene and rigid polystyrene, retail food item packaging such as foodware containers, packing material, meat, fish and produce trays, egg cartons, ice chests, and requires straws upon request

Outreach & Education

- The Environmental Services Bureau offers a calendar of workshops on waste reduction, composting and related topics
- A Compost and Recycling Ambassador (CRA) Program, an 8 week certification series hosted by the Environmental Services Department to educate community members on waste reduction, recycling and composting
- A donation guide for unwanted clothes, furniture, electronics, and household items
- A website that lists Food Recovery Organizations and the requirements to donate Edible Food
- A virtual tour of the Recycling Facility on terminal island
- A monthly eco-guide newsletter to notify residents of news and upcoming events

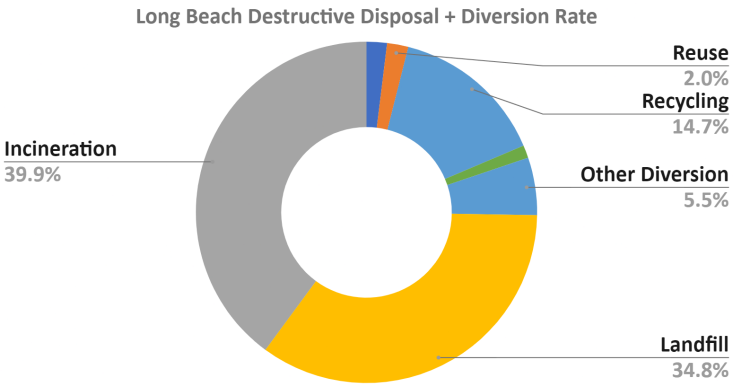
Waste Reduction

- Shred events for unwanted paper documents
- City serviced accounts can request Special Collection up to 12 times annually
- A Household Hazardous Waste (HHW) and Electronic Waste (E-waste) drop-off program every 2nd & 4th Saturday of the month

Requirements of State Law

The California legislature has adopted many state laws designed to protect California's environment through the reduction, reuse and recycling of resources, environmental education, and the transition from a disposable to a fully circular economy. These include:

Assembly Bill 939 (1989): Requires 50% diversion from disposal
Assembly Bill 2176 (2004): Requires large venues and events to have recycling
Assembly Bill 341 (2011): Mandatory commercial recycling, 75% recycling goal by 2020
Senate Bill 270 (2015): Single-use plastic bag ban
Assembly Bill 1826 (2014): Mandatory commercial organics diversion
Senate Bill 1383 (2016): 75% organics diversion by 2025, mandatory surplus food recovery
Assembly Bill 1276 (2021): Standard single-use foodware and condiments



Assembly Bill 2048 (2022): Requires all CA jurisdictions to publish franchise agreements
Assembly Bill 1857 (2022): Removes diversion credit for incineration
Senate Bill 54 (2022): Requires reduction, recycling, or composting of single-use packaging and single-use plastic foodware

The Department of Resources Recycling and Recovery (CalRecycle) oversees compliance with these laws, but much of the responsibility for implementation has been delegated to California jurisdictions.

City Diversion & Destructive Disposal

Diversion rates are typically expressed as the percentage of materials diverted from disposal in landfills and incinerators using the following formula:
Generation = Diversion + Disposal
Diversion Rate (%) = Diversion (tons) /Generation (tons)

In 2022, the baseline year for this plan, the city diversion rate was 25.3 percent. This is based on 108,692 tons of diversion (recycling and composting) and 321,510 tons of disposal (landfill and incineration). This baseline estimate includes the materials managed by each jurisdiction and their collection service providers, and the tons of materials delivered to recycling, compost, and disposal facilities by residents and businesses.

Diversion	Tons	%
Recycling	63,078	14.7%
Composting	5,167	1.2%
Other Diversion	23,486	9.4%
Total Diversion	**108,692**	**25.3%**
Destructive Disposal		
Landfilled	149,796	34.8%
Combusted	171,714	39.9%
Destructive Disposal	**321,510**	**74.7%**
Total Generation	430,202	100.0%
Source: *2022 Long Beach Electronic Annual Report, CLB Waste Data for Zero Waste USA* ***Other Diversion:*** *landfill salvage, e-waste, thrift store, building material*		

Zero Waste Initiatives

Policies

1. Zero Waste Goal
   Adopt a Zero Waste to landfill and incineration percentage target, volume/tonnage reduction goal by a specific date.

Summary of Impacts	Long Beach
Diversion Potential	3,215 tons
GHG Reduction Potential	(4,144) MTCO2e

2. Single-use Plastic Packaging Policies (expand styrofoam ban, reusable take-out foodware)
   Bans, fees, or take-back requirements for problem products, including expansion of existing plastic bag ban and expansion of existing polystyrene foodware ban to include single-use plastic foodware. Create incentives and subsidies for

businesses to transition to reusables such as grants to restaurants for reusable foodware and installation of dishwashers.

Summary of Impacts	Long Beach
Diversion Potential	900 tons
GHG Reduction Potential	(4,145) MTCO2e

3. Source Separated Recycling and Composting (Residential, Multi-family, Commercial, Self-Haul) (State Law)
   Develop model ordinance to require recycling and composting for all generators and supplements existing SB1383, AB1826 requirements. Expansion of recycling and composting collection programs for single-family, multi-family, commercial, and schools/institutions. Residents and businesses must place locally accepted recyclable and compostable materials in the appropriate bin. A requirement that self-haul loads at the transfer station are charged a lower cost for source separated loads.

Summary of Impacts	Long Beach
Diversion Potential	29,981 tons
GHG Reduction Potential	(39,790) MTCO2e

4. Construction Debris Recycling Requirements
   Require recycling of building materials of new construction, demolition, and deconstruction projects. The policy includes a high diversion rate (i.e. 80%) and the requirement to use a local C&D facility. Consider designing new construction for deconstruction.

Summary of Impacts	Long Beach
Diversion Potential	19,451 tons
GHG Reduction Potential	(25,650) MTCO2e

Programs

5. Prioritize Reuse (Repair Clinic, Repair Fairs, Tool Lending Library, Right to Repair)
   Quarterly or monthly repair fairs, repair clinics, tool lending library, promote material exchange. These events can be city-led or led by community groups, and demonstrate how to sew reusable bags or use power tools. Create a

directory of community rental, reuse, repair, and recycling businesses, and promote reuse events.

Summary of Impacts	Long Beach
Diversion Potential	241 tons
GHG Reduction Potential	(1,235) MTCO2e

6. Comprehensive Outreach and Education Program (Door-to-Door Outreach, Education, Technical Assistance, System Change through Art, Food Scrap and Composting at Schools Assistance)
   Citywide program to support all generators to reduce waste, recycle and compost.

Summary of Impacts	Long Beach
Diversion Potential	80,377 tons
GHG Reduction Potential	(103,592) MTCO2e

7. Universal Composting & Recycling Curbside Collection
   Require all single-family residences, multi-family residences, and commercial businesses to have the required three stream collection system at all buildings.

Summary of Impacts	Long Beach
Diversion Potential	25,013 tons
GHG Reduction Potential	(27,137) MTCO2e

8. Food Waste Prevention / Surplus Food Donation (State Law)
   Expand surplus edible food recovery from grocery stores and restaurants to food banks, food pantries and soup kitchens.

Summary of Impacts	Long Beach
Diversion Potential	1,752 tons
GHG Reduction Potential	(70) MTCO2e

9. Convenient Collection of Toxics and Hard to Recycle Items – Batteries, Oil, Textiles, Electronics, Wood, Bulky Items
Curbside collection of HHW, Bulky Items, Electronics, Textiles, Used Oil and Filters, Cooking Oil, Chemicals

Summary of Impacts	Long Beach
Diversion Potential	3,231 tons
GHG Reduction Potential	(6,309) MTCO2e

Infrastructure

10. Zero Waste Infrastructure (Resource Recovery Park, Center for Hard to Recycle Materials, Reuse Center) – A facility that accepts reusable goods such as household goods and building materials. The facility can store, process, and sell donated materials. Conduct a study to scope potential sites in Long Beach for an expanded Zero Waste infrastructure.

Summary of Impacts	Long Beach
Diversion Potential	5,192 tons
GHG Reduction Potential	(9,048) MTCO2e

11. Zero Waste Stores (Refill Bulky Stations, BIPOC Owned / Affordable for residents)

Encourage the expansion of Zero Waste Stores that are Black, Indigenous, and People of Color owned. A criticism of the often white Zero Waste community is that it is inaccessible and unaffordable for low-income residents of color, who are in segregated areas in the city. Encouraging entrepreneurship through Zero Waste will bring more green jobs to under-resourced communities.

Summary of Impacts	Long Beach
Diversion Potential	206 tons
GHG Reduction Potential	(550) MTCO2e

12. Invest in Compost Infrastructure (Community Compost, Food Scraps and Yard Trimmings Processing)

Implement a $1 collection rate surcharge per customer per month to fund opportunities for innovative organics processing, ranging from Community Compost Hubs, to allocating city-owned land to pilot medium scale organics processing, and collaborate with regional groups and organizations to develop an organics infrastructure in Southern California.

Summary of Impacts	Long Beach
Diversion Potential	13,584 tons
GHG Reduction Potential	(140) MTCO2e

13. Washing Facilities – Invest in a regional reuse infrastructure to wash reusable items such as foodware, bottles, cloth diapers, cloth napkins and paper towels, etc. Develop transportation infrastructure with businesses to circulate reusables from wash hubs to businesses and from the consumer to the wash hubs.

Summary of Impacts	Long Beach
Diversion Potential	1,125 tons
GHG Reduction Potential	(4,734) MTCO2e

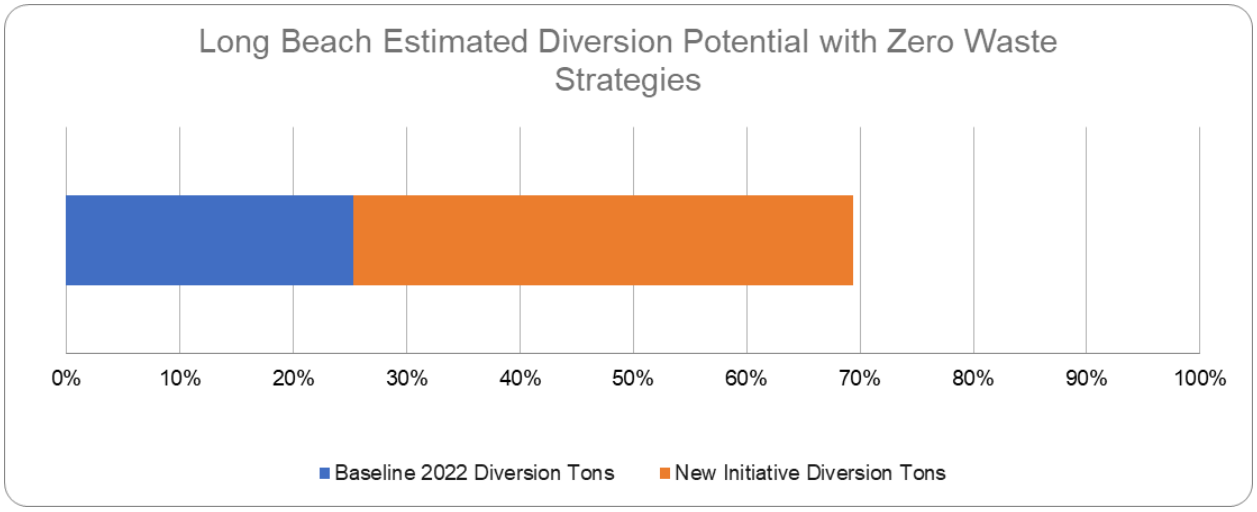
14. Zero Waste Events – Develop a city ordinance that requires Zero Waste regulations for public events and venues. This may consist of essential services (i.e., excess edible food donation, food scrap collection for composting, and recycling collection), durable foodware, disposable foodware requirements, or a target percentage diversion.

Summary of Impacts	Long Beach
Diversion Potential	2,321 tons
GHG Reduction Potential	(4,102) MTCO2e

15. System Change Through Art – Invest in the art economy to depict and promote Zero Waste, reuse, repair, recycling and composting at home, in the neighborhood, on murals, in the city, and as global citizens.

Summary of Impacts	Long Beach

Diversion Potential	3,215 tons
GHG Reduction Potential	(4,144) MTCO2e



Zero Waste Initiatives - Costs and Key Performance Indicators

This table illustrates the estimated number of allocated hours and costs for each of the Zero Waste Initiatives proposed in this plan. These can be assigned to the city staff or a community-based organization, as a partner to the city.

Zero Waste Initiatives	Projected Diversion (Tons)	Projected GHG Reduction (MTCO2e)	Hours (Annual)	Hours (One-Time)	Other Costs (Annual)	Other Costs (One-Time)	Assigned to	Funding Source
Zero Waste Goal	3,215	(4,144)	0	100 (approve plan, adopt goal)	$0	$0	City	NA
Single-Use Plastic Packaging Policy Ban	900	(4,145)	100 (oversee implementation)	100 (develop ordinance)	$20,000 Micro-grant program for reusable foodware	$0	City	AB 939 Fee
Source Separated Recycling and Composting	29,981	(39,790)	0	200 (pub meetings, staff reports)	$0	$100,000 (consultant report)	City	Collection Rate
Construction Debris Recycling Requirements	19,451	(25,650)	100 (oversee implementation)	120 (develop ordinance, public meetings, staff reports)	$0	$150,000 (consultant report, draft ordinance)	City	Permit Fees
Prioritize Reuse	241	(1,235)	1,000 (Zero Waste Ambassadors/Green Team)	120 (develop ordinance, public meetings, staff reports	$0	$5,000 (equipment, outreach, advertising)	Community-Based Organization	Federal, state and private grants
Comprehensive Outreach and Education Program	80,377	(103,592)	2,000 (Zero Waste Ambassadors / Green Team)	0	$100,000 (Outreach materials)	$0	City to be supplemented with Community-Based Organization	AB 939 Fee SB 1383 Fee Federal, state and private grants
Universal Compost and Recycling Curbside Collection	25,013	(27,137)	To be determined by City				City	City Collection Rate
Food Waste Prevention / Surplus Food Donation	1,752	(70)	1,000 (City staff support to Food Recovery Organizations)	0	$20,000 (Grants to Food Recovery Organizations)	$0	City (pursuant to state law)	SB 1383 Fee
Convenient Collection of Toxics and Hard to Recycle Items	3,231	(6,309)	1,000 (coordination)	0	$0	$200,000 (site improvements)	City	Federal, state and private grants
Zero Waste Infrastructure	5,192	(9,048)	3,000 (on-site staff)	0	$100,000 (equipment, vehicles)	$3 million	Community-Based Organization	Federal, state and private grants
Zero Waste Stores	206	(550)	1,000 (coordination)	0	$100,000 (Grants to Zero Waste stores)	$0	Community-Based Organization	Federal, state and private grants
Invest in Compost Infrastructure	13,584	(140)	2,000 (coordination)	0	$1 million (equipment)	$10 million	City (at City facilities)	Collection Rate Surcharge

Zero Waste Initiatives	Projected Diversion (Tons)	Projected GHG Reduction (MTCO2e)	Hours (Annual)	Hours (One-Time)	Other Costs (Annual)	Other Costs (One-Time)	Assigned to	Funding Source
Washing Facilities	1,125	(4,734)	3,000 (on-site staff)	0	$100,000 (equipment, vehicles)	$3 million	Community-Based Organization	Federal, state and private grants
Zero Waste Events	2,321	(4,102)	100 (oversee implementation)	120 (develop ordinance, public meetings, staff reports)	$150,000 (On-site support at events)	$150,000 (consultant report, draft ordinance)	City Ordinance/ Community implementation	Federal, state and private grant
System Change Through Art	3,215	(4,144)	100 (oversee implementation)	0	$20,000 (grant to artists)		Community-Based Organization	Federal, state and private grants
Community-Based Organization			**10,000**	**0**	**$570,000**	**$6,155,000**		
City			**4,400**	**760**	**$1,040,000**	**$10,450,000**		
Total	**189,805**	**(243,790)**	**14,400**	**760**	**$1,610,000**	**$16,605,000**		

Funding

Funding for the new or expanded policies, programs and infrastructure can be raised from a variety of sources.

Collection Rate Surcharge: A collection rate surcharge can be assessed at the transfer station to provide funding for Zero Waste initiatives. The Santa Clara County Recycling and Waste Reduction Commission and the Alameda County Source Reduction and Recycling Board are funded through tipping fees surcharges. Additional examples from around the country have been documented by the Institute for Local Self-Reliance.[2] This dedicated fund could support the on-going work of Community-Based Organizations.

Federal Infrastructure Funding: With the passage of the Bipartisan Infrastructure Act, $325 million is now flowing from the U.S. Environmental Protection Agency (EPA) into local communities, $250 million for the development of facilities and $75 million for the development of outreach and education programs. Other Federal agencies also are funding the growth of recycling infrastructure, including the U.S. Department of Energy, U.S. Department of Labor, and the U.S. Department of Agriculture. There are other federal funding sources for local economic development that have been used to fund recycling infrastructure in other locations.

Industry Funding: Industry has supported significant efforts to increase resident access to high quality recycling programs. These include the Closed Loop Fund, Recycling Partnership, and various coalitions such as the American Beverage Association, PET coalition, Polypropylene Coalition, Glass Recycling Coalition, Food Packaging Institute, and

[2] Waste Surcharges to Fund Composting and More, Institute for Local Self-Reliance: https://ilsr.org/rule/waste-surcharges/

carton council. These are all groups actively looking for projects to fund and potential sources for capital investments.

Environmental Justice Grants: The Environmental and Climate Justice Block Grants Program within the Inflation Reduction Act provides funding for financial and technical assistance to carry out environmental and climate justice activities to benefit underserved and overburdened communities.

Private foundations have expressed interest in supporting waste reduction and recycling for community-based organizations, particularly those in impacted areas or environmental justice communities. These include Plastic Solutions Fund, Rockefeller Foundation, Schmidt Family Foundation, and the Waverley Street Foundation.

Sources

CalRecycle Residential Waste Stream by Material Type
https://www2.calrecycle.ca.gov/WasteCharacterization/ResidentialStreams?lg=272&cy=19
Managing and transforming Waste Streams EPA Tool
https://www.epa.gov/transforming-waste-tool
Waste and Reduction Model (WARM)
https://www.epa.gov/warm
Institute for Local Self-Reliance – Recycling Full-time Equivalents
https://ilsr.org/recycling-means-business/
Institute for Local Self-Reliance – Composting Sense Tables
https://ilsr.org/composting-sense-tables/
CalRecycle Local Government Case Studies
https://calrecycle.ca.gov/LGCentral/Library/CaseStudies/?emrc=63fc240e0c014