

REQUEST FOR COUNCIL ACTION CITY OF SAN DIEGO	CERTIFICATE NUMBER (FOR COMPTROLLER'S USE ONLY)
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TO: CITY COUNCIL	FROM (ORIGINATING DEPARTMENT): Environmental Services	DATE: 10/16/2013
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SUBJECT: Proposed Zero Waste Objective for the City of San Diego

PRIMARY CONTACT (NAME, PHONE): Meghan Cannis,858-492-5009	SECONDARY CONTACT (NAME, PHONE): ,
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COMPLETE FOR ACCOUNTING PURPOSES

FUND					
DEPT / FUNCTIONAL AREA					
ORG / COST CENTER					
OBJECT / GENERAL LEDGER ACCT					
JOB / WBS OR INTERNAL ORDER					
C.I.P./CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00

FUND					
DEPT / FUNCTIONAL AREA					
ORG / COST CENTER					
OBJECT / GENERAL LEDGER ACCT					
JOB / WBS OR INTERNAL ORDER					
C.I.P./CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00

COST SUMMARY (IF APPLICABLE):

ROUTING AND APPROVALS

CONTRIBUTORS/REVIEWERS:	APPROVING AUTHORITY	APPROVAL SIGNATURE	DATE SIGNED
	ORIG DEPT.		
	CFO		
	DEPUTY CHIEF		
	COO		
	CITY ATTORNEY		
	COUNCIL PRESIDENTS OFFICE		

PREPARATION OF: RESOLUTIONS ORDINANCE(S) AGREEMENT(S) DEED(S)

1. Adopt a Zero Waste objective for the City of San Diego with an initial goal of diverting 75% of waste generated in the City from landfill disposal by 2020 and a goal of zero waste by 2040, via the elimination of waste from landfill disposal and the diversion of recyclable materials to reprocessing into usable forms with minimal transport, energy use, and harm to society and the environment.

2. Direct ESD staff to develop a Zero Waste Plan in 2014 that establishes a framework for, and provides guidance in, the City's planning and decision-making process so as to achieve the City's Zero Waste objective, and return to NR&C with the draft plan.

STAFF RECOMMENDATIONS:
Approve the requested actions.

SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)

COUNCIL DISTRICT(S):	All
COMMUNITY AREA(S):	All
ENVIRONMENTAL IMPACT:	This activity is not a "project" and is therefore not subject to CEQA pursuant to State CEQA Guidelines Section 15060(c)(3).
CITY CLERK INSTRUCTIONS:	N/A

**COUNCIL ACTION
EXECUTIVE SUMMARY SHEET
CITY OF SAN DIEGO**

DATE: 10/16/2013

ORIGINATING DEPARTMENT: Environmental Services

SUBJECT: Proposed Zero Waste Objective for the City of San Diego

COUNCIL DISTRICT(S): All

CONTACT/PHONE NUMBER: Meghan Cannis/858-492-5009

DESCRIPTIVE SUMMARY OF ITEM:

The City of San Diego's Environmental Services Department is proposing the adoption of a Zero Waste Objective for the City, with an initial goal of diverting 75% of waste generated in the City from landfill disposal by 2020 and a goal of zero waste by 2040.

STAFF RECOMMENDATION:

Approve the requested actions.

EXECUTIVE SUMMARY OF ITEM BACKGROUND:

Zero Waste is a principle that entails handling discarded materials as resources rather than waste, conserving these resources through waste prevention, recycling, and composting and takes into consideration how resources flow from "cradle to grave". The City of San Diego (City) has already been working towards Zero Waste by fostering sustainable resource management practices as demonstrated by its current 68% waste diversion rate.

Given the more recent enactment of AB 341 (2011), which establishes a statewide goal of 75% diversion by 2020, it is time to develop a framework for the City to achieve this goal by 2020.

The Environmental Services Department (ESD) proposes that the City adopt a Zero Waste objective as described in the accompanying Resolution that will establish the context for a Zero Waste Plan (ZWP), thus positioning the City to divert 75% of waste from landfills by 2020 and reach Zero Waste by 2040.

Please see the attached full Report to the City Council

FISCAL CONSIDERATIONS:N/A

EQUAL OPPORTUNITY CONTRACTING INFORMATION (IF APPLICABLE): N/A

PREVIOUS COUNCIL and/or COMMITTEE ACTION (describe any changes made to the item from what was presented at committee): N/A

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS: N/A

Originating Department

Deputy Chief/Chief Operating Officer



THE CITY OF SAN DIEGO
REPORT TO THE CITY COUNCIL

DATE ISSUED: November 6, 2013 REPORT NO: 13-088
ATTENTION: Natural Resources and Culture Committee
SUBJECT: Proposed Zero Waste Objective for the City of San Diego
REFERENCE: N/A

REQUESTED ACTION:

1. Adopt a Zero Waste objective for the City of San Diego with an initial goal of diverting 75% of waste generated in the City from landfill disposal by 2020 and a goal of zero waste by 2040, via the elimination of waste from landfill disposal and the diversion of recyclable materials to reprocessing into usable forms with minimal transport, energy use, and harm to society and the environment.
2. Direct ESD staff to develop a Zero Waste Plan in 2014 that establishes a framework for, and provides guidance in, the City's planning and decision-making process so as to achieve the City's Zero Waste objective, and return to Natural Resources & Culture Committee with the draft plan.

STAFF RECOMMENDATION: Approve the requested actions.

EXECUTIVE SUMMARY:

Zero Waste is a principle that entails handling discarded materials as resources rather than waste, conserving these resources through waste prevention, recycling, and composting and takes into consideration how resources flow from "cradle to grave". In 2001, the California Integrated Waste Management Board, now known as California's Department of Resources Recycling and Recovery (CalRecycle), set a goal of Zero Waste in its strategic plan for the State and later adopted the statewide slogan, "*Zero Waste. You Make it Happen*". The City of San Diego (City) has already been working towards Zero Waste by fostering sustainable resource management practices as demonstrated by its current 68% waste diversion rate. This diversion rate exceeds the Assembly Bill (AB) 939 (1989) requirement that all California jurisdictions achieve a landfill diversion rate of 50% by the year 2000, and reduce, reuse, recycle, and compost all discarded materials to the maximum extent feasible before any landfilling or other destructive disposal method is used.

Given the more recent enactment of AB 341 (2011), which establishes a statewide goal of 75% diversion by 2020, it is time to develop a framework for the City to achieve this goal by 2020.

Aligned with that goal, the Environmental Services Department (ESD) proposes that the City adopt a Zero Waste objective as described in the accompanying Resolution that will establish the context for a Zero Waste Plan (ZWP), thus positioning the City to divert 75% of waste from landfills by 2020 and reach Zero Waste by 2040. The purpose of the ZWP is to effectively and efficiently make the best use of natural resources, create local green jobs, and reduce the need for future waste disposal facilities. The ZWP will include policy, regulatory, and programmatic initiatives. It will further develop and enhance current partnerships, incentivize positive behavior change, provide new recommendations, enhance and implement expanded collections systems, and develop funding strategies that support a sustainable rather than a disposal based solid waste management system.

ZWPs are becoming a common planning tool throughout the United States and abroad by both government agencies and large corporations including 15 California cities, more than 60 governments internationally, and more than 25 corporations. Likewise, Zero Waste businesses are already leading the way, diverting over 90% of their wastes from landfills and incinerators. Local Zero Waste businesses have documented that they save money, reduce their liabilities, increase their efficiency, and contribute significantly to addressing climate change. On November 13, 2012, the City Council adopted the Long-Term Resource Management Options Strategic Plan which was developed to identify ways to maximize the life of the Miramar Landfill, point out existing and new Zero Waste programs, and evaluate alternate disposal options.

ESD believes the City and the community would reap significant benefits from the development of a ZWP. However, it is important to note that the City faces significant funding constraints due to the People's Ordinance (San Diego Municipal Code §66.0127), which provides that the City must collect residential refuse without charging customers for the collection, transportation or disposal of that refuse. Currently, revenues from both AB 939 fees assessed on disposal tonnage and a portion of disposal fees collected at the Miramar Landfill fund waste diversion programs. As existing programs continue to increase waste diversion and new programs are initiated from the ZWP, landfill tonnage and revenues are expected to decline, which will in turn reduce funding for these programs. The development and implementation of Zero Waste programs and projects is a dynamic process occurring over many years which will require that the most fiscally responsible approaches are taken when implementing the programs. Because of these financial challenges, significant changes to the way programs are funded need to occur in order for the City to achieve the Zero Waste goal contained in the ZWP. As projects and programs are developed, they will be brought forward for review as necessary.

The City has already taken critical steps on the path to Zero Waste. The City is responsible for the majority of single-family residential refuse, recycling, and green waste collection in the City and a small portion of the multi-family residential refuse and recycling collection. Businesses, institutions, and some single family and multi-family residences must contract with, and pay for, private haulers to collect and process their trash and recyclables. The City influences waste diversion in the private sector through franchise agreements, policies, programs, and ordinances it adopts. This is best evidenced by the City Council's adoption of two ordinances geared specifically at reducing the amount of waste disposed to Miramar Landfill.

First, the Construction and Demolition (C&D) Debris Deposit Ordinance requires certain building and/or demolition project applicants to post a refundable deposit to ensure compliance with the ordinance which requires diversion of at least 50% of the C&D debris generated by the project. Second, the City Recycling Ordinance requires recycling of recyclable materials generated from residential facilities (both single family and multi-family), commercial facilities (including City buildings), and special events.

Zero Waste is an ambitious endeavor in which no single strategy will result in success. Rather it is a combination of tactics that synergistically lead to achievement of the goals. The City currently has numerous waste diversion and resource management strategies in place in addition to the above mentioned ordinances which include: curbside greenery and recycling collection; waste reduction, recycling, and composting education; a commercial food waste composting program; public space recycling programs; and an environmentally preferable purchasing program (EP3). In addition, the City has required franchise waste haulers to provide recycling services as a term of their franchise agreements.

As a result of the implementation of the City Recycling Ordinance, the level of recycling service to commercial and multi-family customers has increased by 90% over the last four years. However, even with these programs and efforts, both the City's curbside collection program and the haulers' collection programs are only at 23% recycling, leaving significant room for improvement. Most mature recycling programs achieve at least a 40% recycling rate.

The City's waste composition study demonstrated that 76% of materials being disposed City-wide are recyclable. The Zero Waste Plan is intended to serve as the first step on a long path towards a Zero Waste future. Dedication, collaboration, and continual re-evaluation will be essential to San Diego's success in this venture.

FISCAL CONSIDERATIONS:

There are no expenditures associated with adopting a Zero Waste objective.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (IF APPLICABLE):

N/A

PREVIOUS COUNCIL and/or COMMITTEE ACTION:

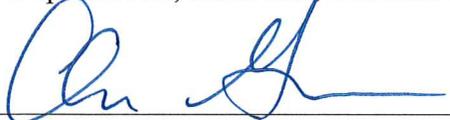
N/A

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:

None at this time

KEY STAKEHOLDERS AND PROJECTED IMPACTS:

City Departments, Residents, Businesses, and Community Partners

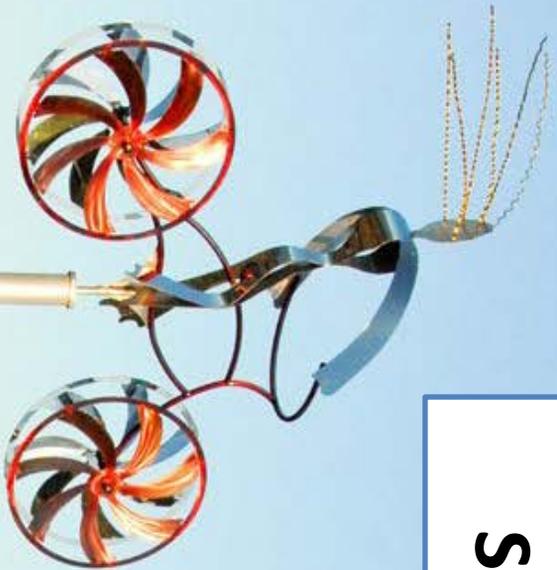

Chris Gonaver, Director
Environmental Services Department


Scott Chadwick
Assistant Chief Operating Officer

San Diego's Zero Waste Objective

NATURAL RESOURCES AND CULTURE COMMITTEE

November 6, 2013





Zero Waste

“Zero Waste is a principle that takes into consideration how resources flow from “cradle to grave”.

Zero Waste Objective will allow:

ESD staff to develop a Zero Waste Plan

- Divert 75% waste by 2020
- Reach Zero Waste by 2040



Background

1989

- AB 939: requires 50% diversion by 2000

2011

- AB 341: statewide goal of 75% diversion by 2020

2012

- San Diego has a 68% diversion rate



Background

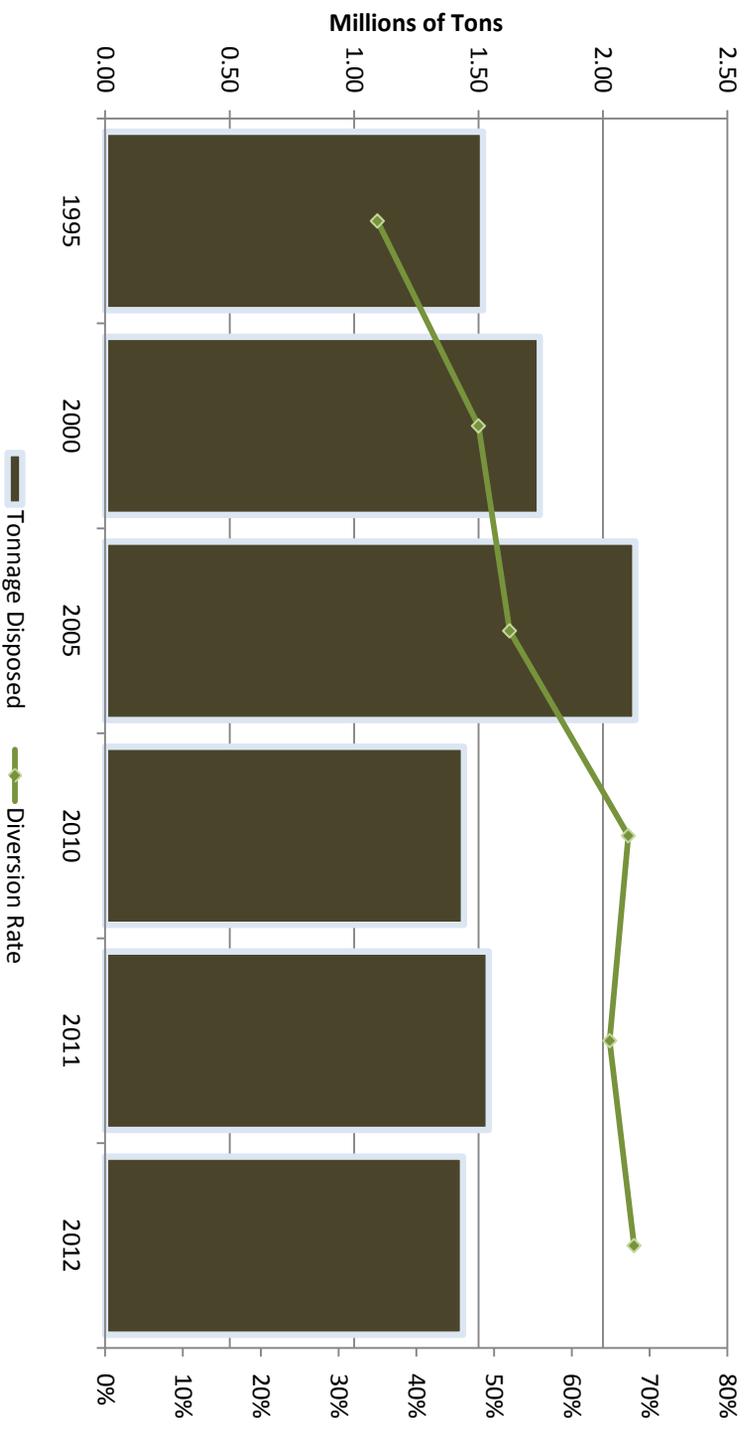
Current Zero Waste Strategies:

- Curbside Collection
- Public Outreach and Education
- Food Waste Diversion Program
- Public Space Recycling Program
- Environmentally Preferable Purchasing Program
- Franchise Agreements
- Construction & Demolition Ordinance
- City Recycling Ordinance



Background

Disposal and Diversion in San Diego



Opportunities

2013 Waste Composition Study

o 76% of disposed materials are recyclable

Value of Recyclables:

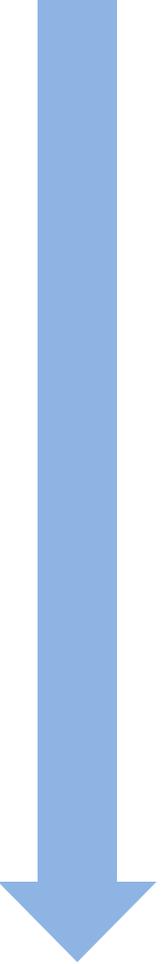
o \$54 million



Achieving Zero Waste

Future Key Strategies

- o Develop Resource Recovery Center
- o Expand Greenery Recycling and convert Blue Bin and Greenery collection to weekly
- o Develop infrastructure to enhance food waste diversion
- o Maximize effectiveness of C&D Ordinance, City Recycling Ordinance and Franchise Agreements
- o Develop supporting policies and regulations
- o Changing how recycling is funded



**75% by 2020
Zero Waste
by 2040 !**



Next Steps

- o Seek City Council approval of the Zero Waste objective
- o ESD to develop a Zero Waste Plan and bring back to NR&C in Spring of 2014



A Vision for Zero Waste Leadership in San Diego



Zero Waste: Executive Summary

The culture of the City of San Diego includes a love for the environment. It is fitting that the City lead in providing a sustainable future for its residents. An important part of that future is the prevention and management of discarded materials to make the best use of resources to reduce greenhouse gas emissions, create local “green jobs”, and reduce the need for disposal facilities.

A 2020 goal of 75% diversion of discarded materials from landfill disposal with the achievement of Zero Waste by 2040 is possible. The City, in cooperation with the assistance of its employees, industry partners, businesses and residents, can accomplish this goal through six bold strategies:

1. Policy and regulatory initiatives;
2. Developing and enhancing current partnerships;
3. Informing and incentivizing behavior;
4. Enhancing and implementing new collection programs;
5. Enhancing post-collection systems; and,

6. Developing funding strategies that support a sustainable rather than a disposal-based system.

The cost of implementing these strategies compared to the City of San Diego 2013 Waste Composition Study shows that the current annual disposal of more than **\$54 million** in discarded materials.

The benefits include:

- Reductions to the use of virgin resources for products;
- Reduction in greenhouse gas emissions and local smog forming emissions;
- Creation of local green jobs; and,
- Extension of the life of local disposal facilities. Extending the life of facilities precludes the need to develop new disposal facilities to mitigate environmentally damaging prospects of hauling these materials to other distant landfills.

Zero Waste: A Worldwide Response

Designing for Reduced Waste

Zero Waste is a design principle that focuses on reducing waste, reusing products, and then recycling and composting them at the end of their life cycle. Worldwide governmental and non-governmental organizations have recognized that the prevention and management of discarded materials is essential to achieving an economically, environmentally, and socially sustainable future.



"For the first time in history, the majority of the planet's population now lives in cities... thus creating a new set of environmental challenges and opportunities."

UN Urban Environmental Accords



"A zero waste future is not only possible, it's also critical to solving today's climate crisis and other environmental challenges."

Vancouver, Canada



CONSORZIO
PRIULA

Policy Statement: "...to manage waste in an effective, efficient, economical way ensuring elevated protection for the environment and communities."

The Treviso Priula Consortium, Italy



"The Containers and Packaging Recycling Law and the Waste Emergency Declaration, encouraged the reduction of waste through enhanced cooperation among citizens."

Nagoya, Japan

"The overall goal of urban solid waste management is to collect, treat and dispose of solid wastes ... in an environmentally and socially satisfactory manner using the most economical means available."

The World Bank



"The Green exchange was introduced in 1990, this scheme was to encourage the poor to recycle their waste in return for food produce or bus transport tickets. This has proved to be a valuable service for the poor as they live in favelas which are hard for the recycling team to access."

Curitiba, Brazil



"Through collaboration, education, advocacy and financial incentives, Zero Waste SA is stimulating innovative practices to drive resource efficiency and help South Australians meet South Australia's Strategic Plan target."

Zero Waste South Australia



Zero Waste: A National Response

Nationally, cities are adopting Zero Waste policies and strategies to achieve their vision of a sustainable future for their communities.



"Avoiding the creation of waste or discards in the first place is the most economically efficient and environmentally sustainable resource management strategy."

Boulder Office of Environmental Affairs



"Zero Waste Washington has focused on producer responsibility as a tool to decrease toxicity in products and increase recycling...manufacturers are responsible for the products they make from cradle-to-cradle."

Seattle Foundation

"... [The city is to adopt] a policy promoting the highest and best use of discarded materials."



San Francisco Environment

"Collection strategies will include making collection of food waste, Styrofoam, hazardous waste, and more plastic and metal materials easier."

Austin Resource Recovery

Department

"Anaerobic digestion of food scraps is about to become a reality! Biogas will be used on site at the Water Treatment Facility."

San Jose Environmental Services



"The City of Portland and Multnomah County's objective [is] to reduce carbon emissions by 40 percent by 2030, and 80 percent by 2050."

City of Portland and Multnomah County



"We must make changes at every stage of our waste system—reducing the amount we generate, reusing more of it, recovering more resources from it, and more efficiently disposing of what we can't eliminate. We must also change how we think about our waste—not as a by-product to be disposed, but as a resource that can generate energy, create jobs, and spur economic development."

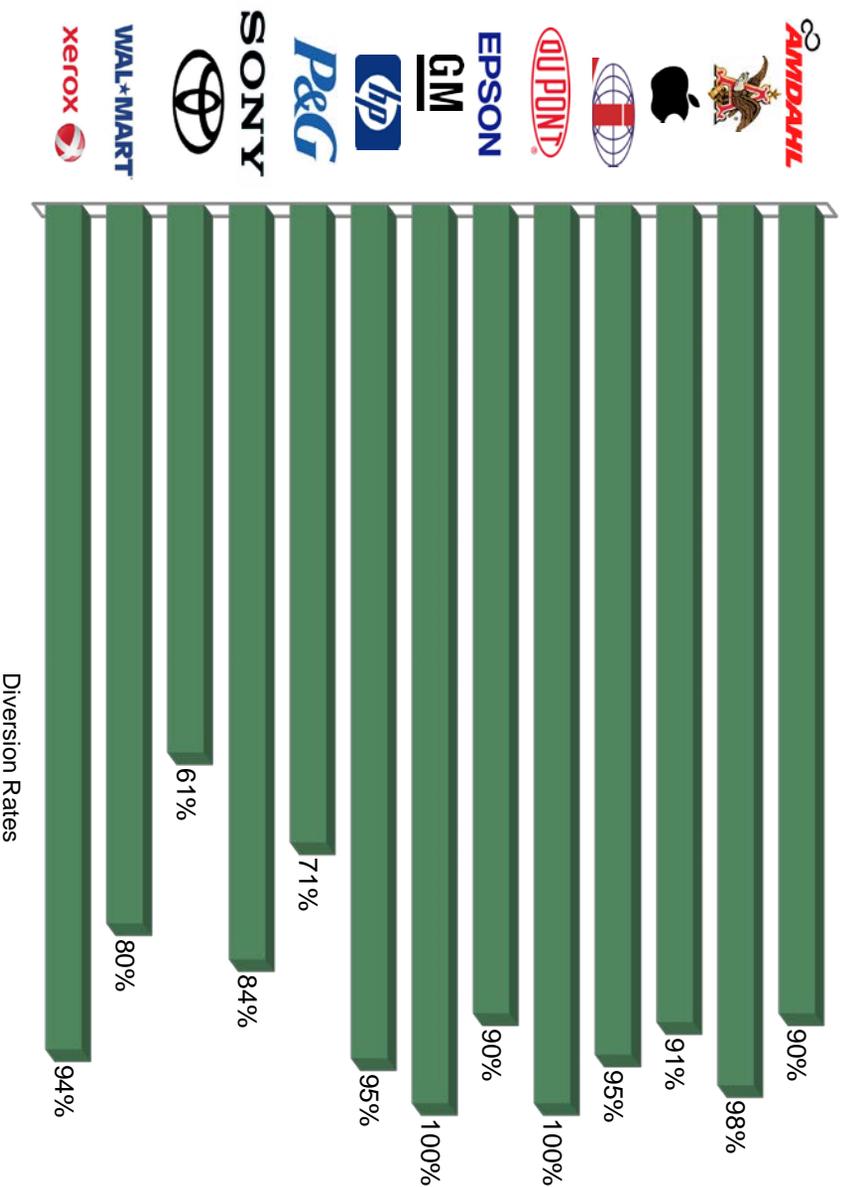
New York City Office of the Mayor



Zero Waste: A Corporate Response

Corporations as diverse as Apple, Anheuser-Busch, General Motors, Sony, and HP are adopting Zero Waste design principles to profitably conserve resources.

■ Diversion Rates of Major Corporations



Zero Waste Improves the Bottom Line:

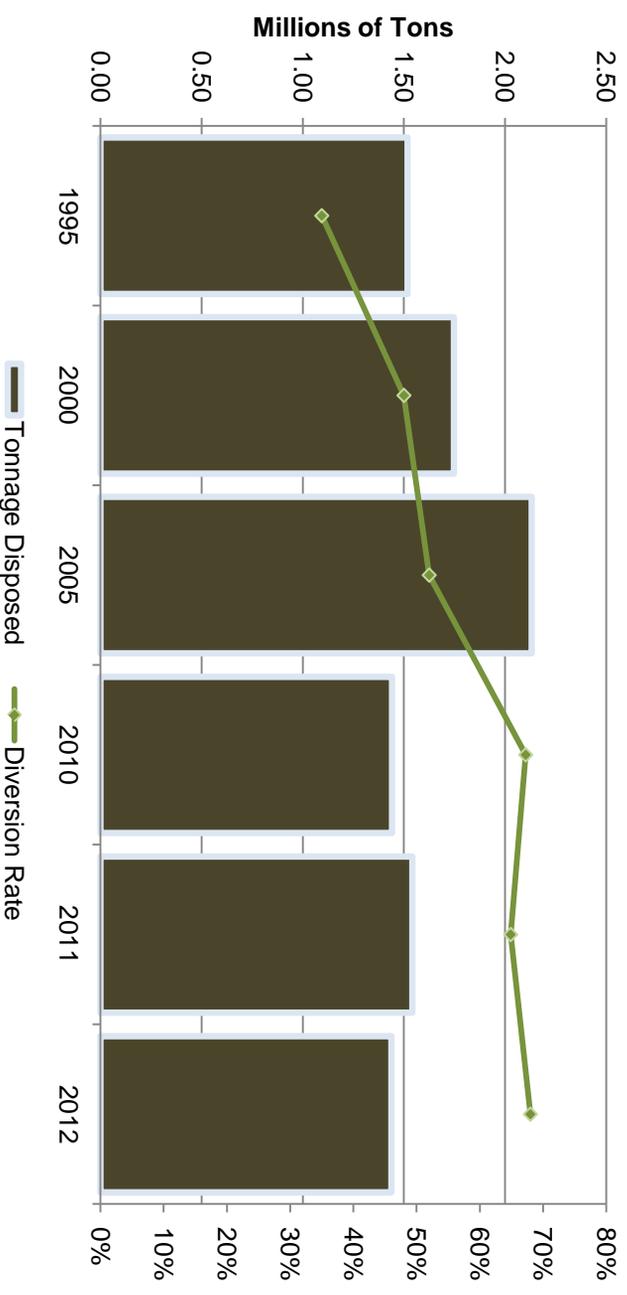
- **GM:** added \$1 billion in revenue annually from byproduct recycling and reuse.
- **Amdahl:** saved \$300,000 in waste hauling costs over four years by switching to recycling.
- **Hewlett-Packard:** saved almost \$5.1 million a year through reuse and avoided waste disposal costs.
- **San Diego Wild Animal Park:** saved over \$1 million annually in tipping and hauling fees.



Zero Waste in San Diego: The Opportunity

Currently, the City is achieving a **68% diversion rate**—well above the state requirements and favorable when compared to many large cities. It does so through adoption of policies such as the City Recycling Ordinance (CRO) and the Construction and Demolition Debris Deposit Ordinance. Additionally, the City benefits from public education, adoption of diversion programs in City facilities and partnerships that offer collection and post collection diversion services to City residents and businesses. Despite this high achievement, the City still disposes of more than **1,291,000 tons** of materials annually.

Disposal and Diversion in San Diego

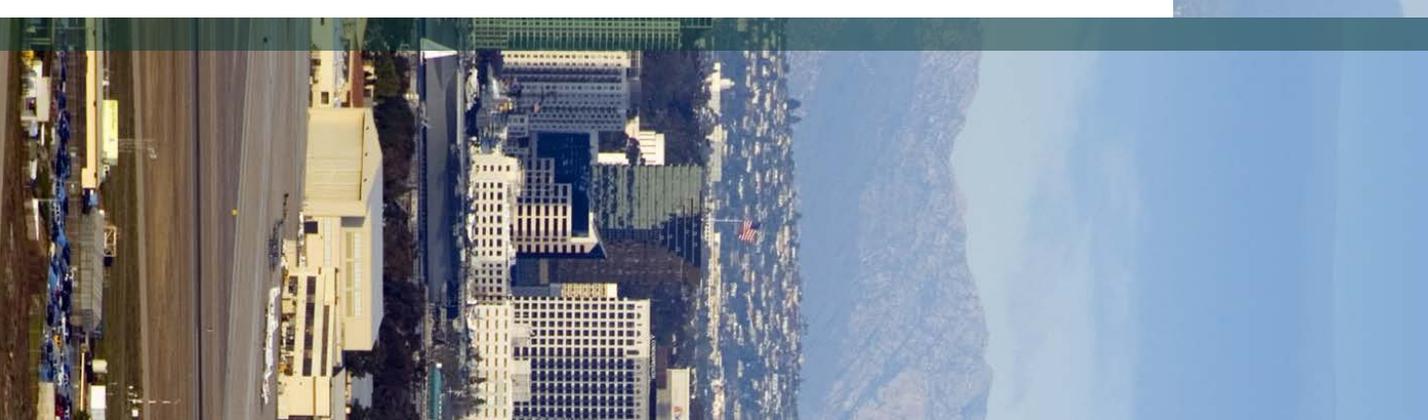
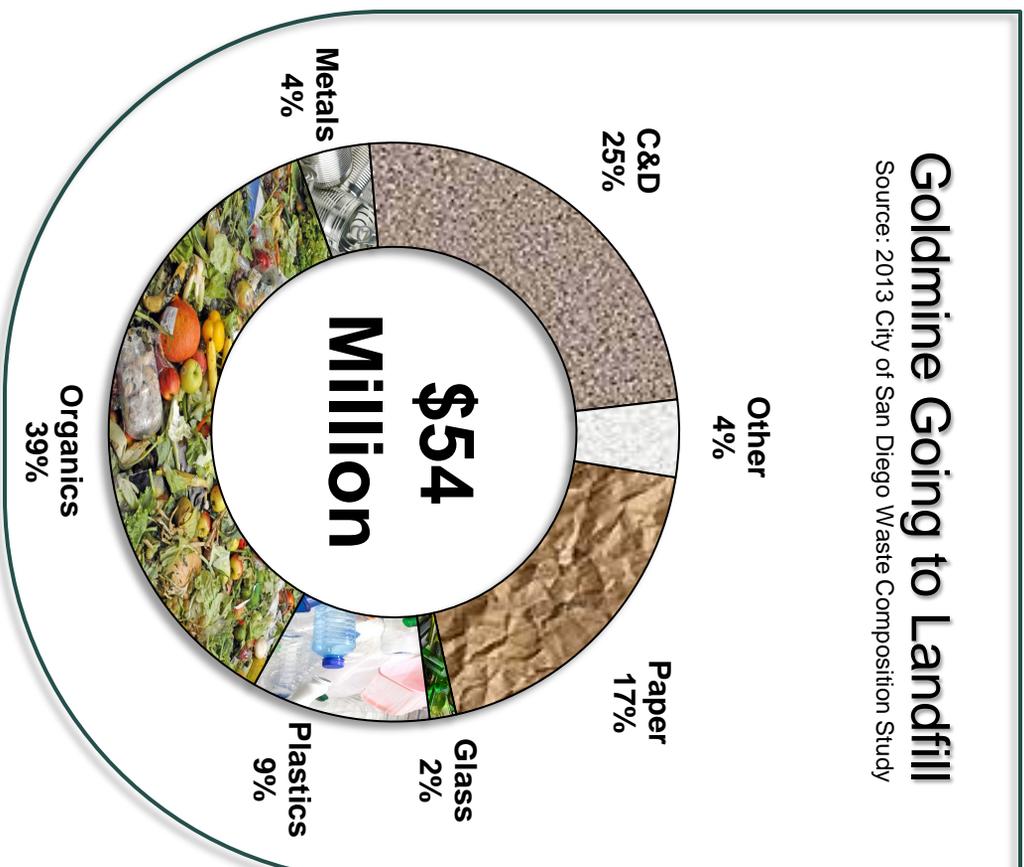


Zero Waste in San Diego: The Cost of Wasting

The Benefits

From a Zero Waste approach, the benefits of these the disposed materials is dramatic.

Based on the composition of waste materials going to landfills, recovery would equate to up to **\$54 million** in value disposed of annually.

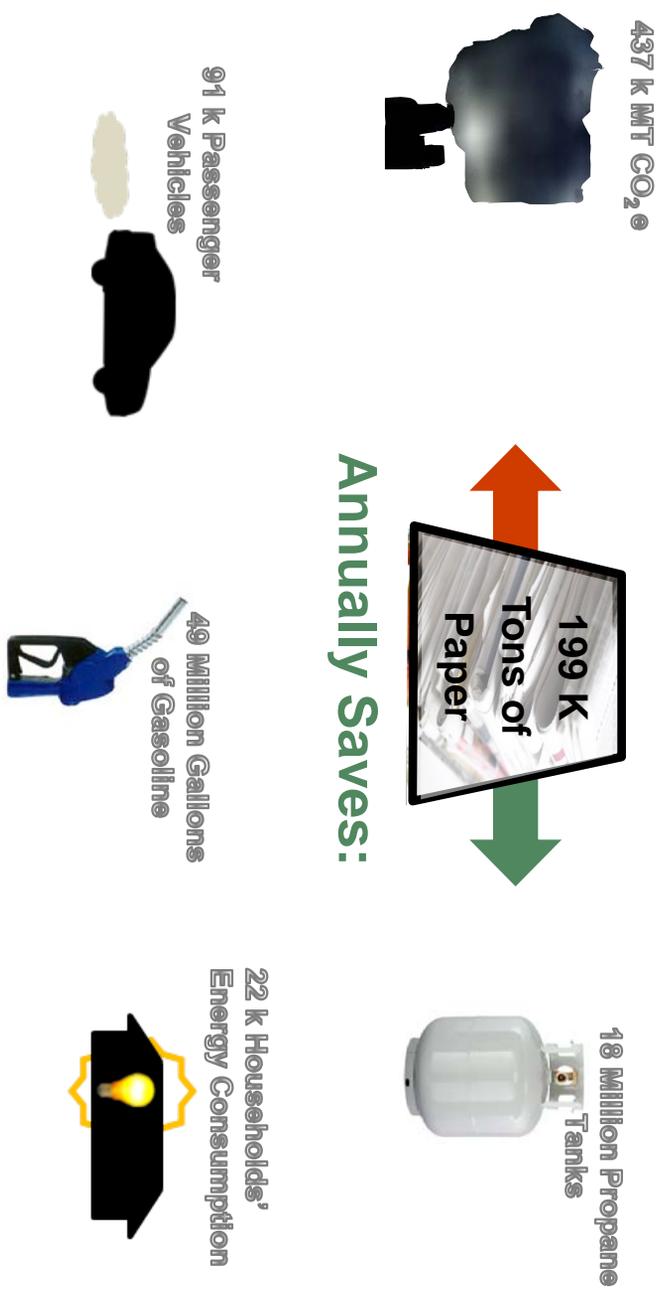


Zero Waste in San Diego: Potential for Paper

Zero Waste Means Resource Conservation and Emissions Reduction

San Diego disposed of 213,000 tons of paper last year. Of these, 129,000 tons were recyclable and 70,000 tons were compostable. By combining these two diversion methods, San Diego can prevent 437,000 metric tons of CO₂ equivalent from entering the atmosphere. This is equivalent to removing annual from 91,000 passenger vehicles; conserving 49 million gallons of gasoline; conserving the energy consumption from 22,000 households, and 18 million propane tanks.

Recycling & Composting



Zero Waste in San Diego: Potential for Metal

Zero Waste Means Resource Conservation and Emissions Reduction

San Diego disposed of approximately 44,000 tons of metal last year. Of these, 32,000 tons are recoverable. If San Diego recycled these materials instead of sending them to the landfill, the city could prevent 93,000 metric tons of CO₂ equivalent from entering the atmosphere. This is equivalent to removing annual emissions from 19,500 passenger vehicles; conserving 10.5 million gallons of gasoline; conserving the energy consumption from 4,500 households, and 4 million propane tanks.

Recycling



93 k MT CO₂e



4 Million Propane
Tanks



Annually Saves:

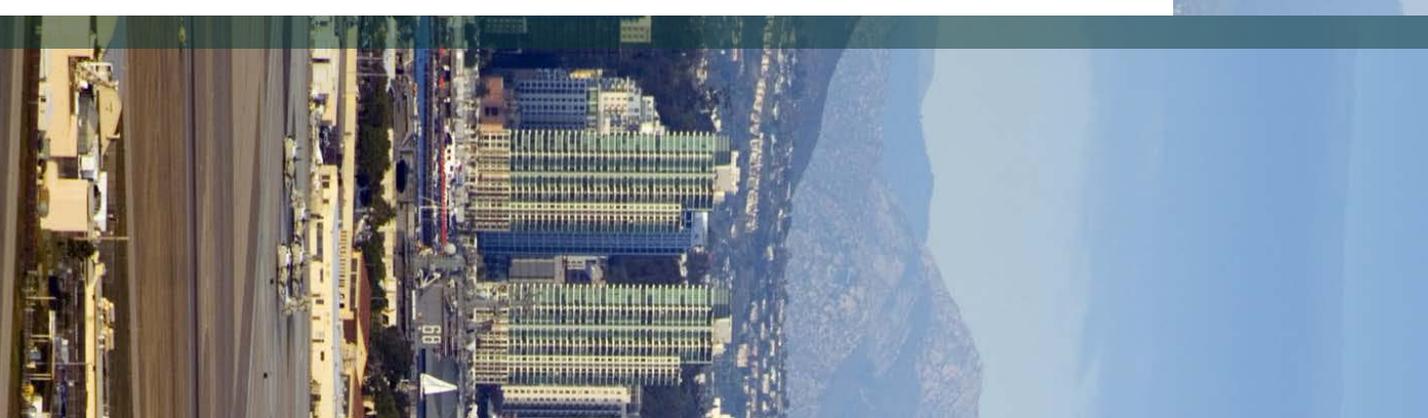
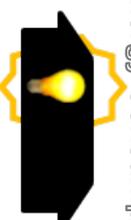
19.5 k Passenger
Vehicles



10.5 Million Gallons
of Gasoline



4.5 k Households'
Energy Consumption



Zero Waste in San Diego: Potential for Glass

Zero Waste Means Resource Conservation and Emissions Reduction

San Diego disposed of 22,000 tons of glass last year. Of these, 12,000 tons are recyclable. Saving this valuable commodity can prevent 4,000 metric tons of CO₂ equivalent from being released into the atmosphere. This is the equivalent to removing annual emissions from 794 passenger vehicles; conserving 427,000 gallons of gasoline; conserving energy consumption from 190 households, and 159,000 propane tanks.

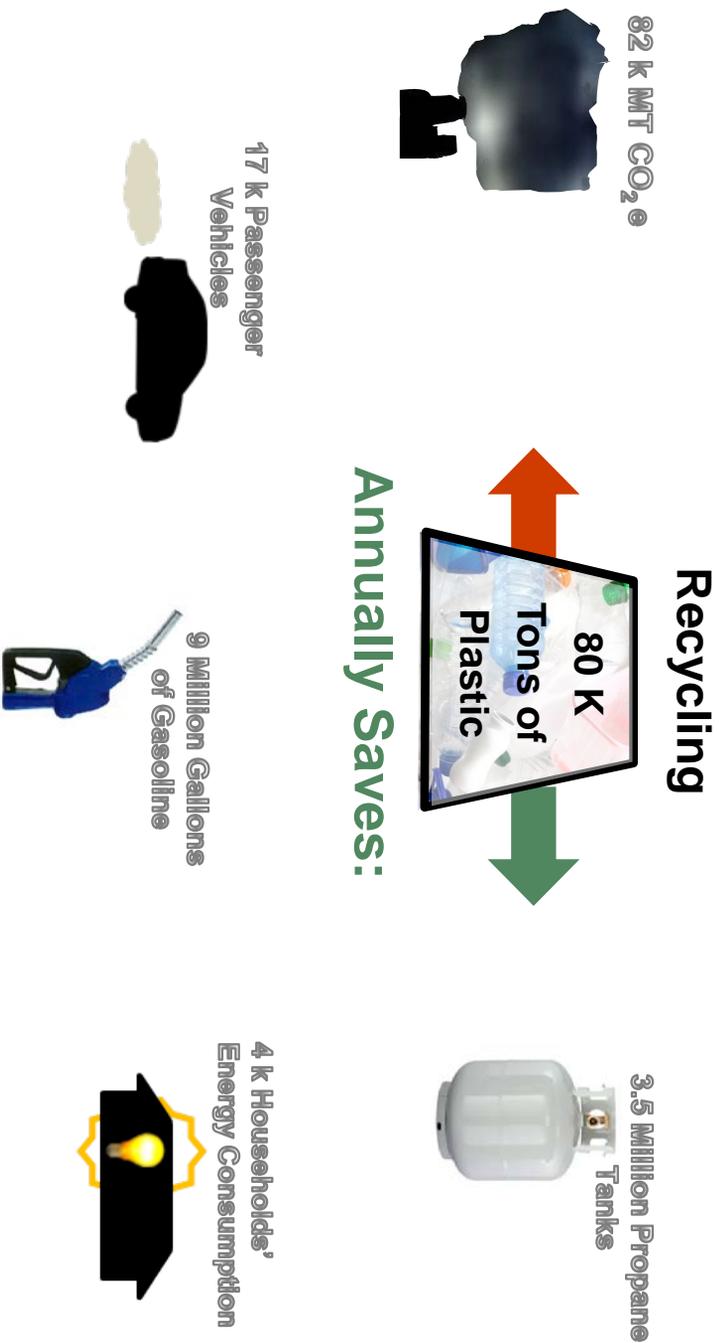
Recycling



Zero Waste in San Diego: Potential for Plastic

Zero Waste Means Resource Conservation and Emissions Reduction

San Diego disposed of approximately 113,000 tons of plastic last year. Of these, 80,000 tons are recyclable. If San Diego prevented plastic from going to the landfill, the city could prevent 82,000 metric tons of CO₂ equivalent from entering the atmosphere. This is the equivalent to removing annual emissions from 17,000 passenger vehicles, conserving 9 million gallons of gasoline; conserving the energy consumption from 4,000 households, and 3.5 million propane tanks.

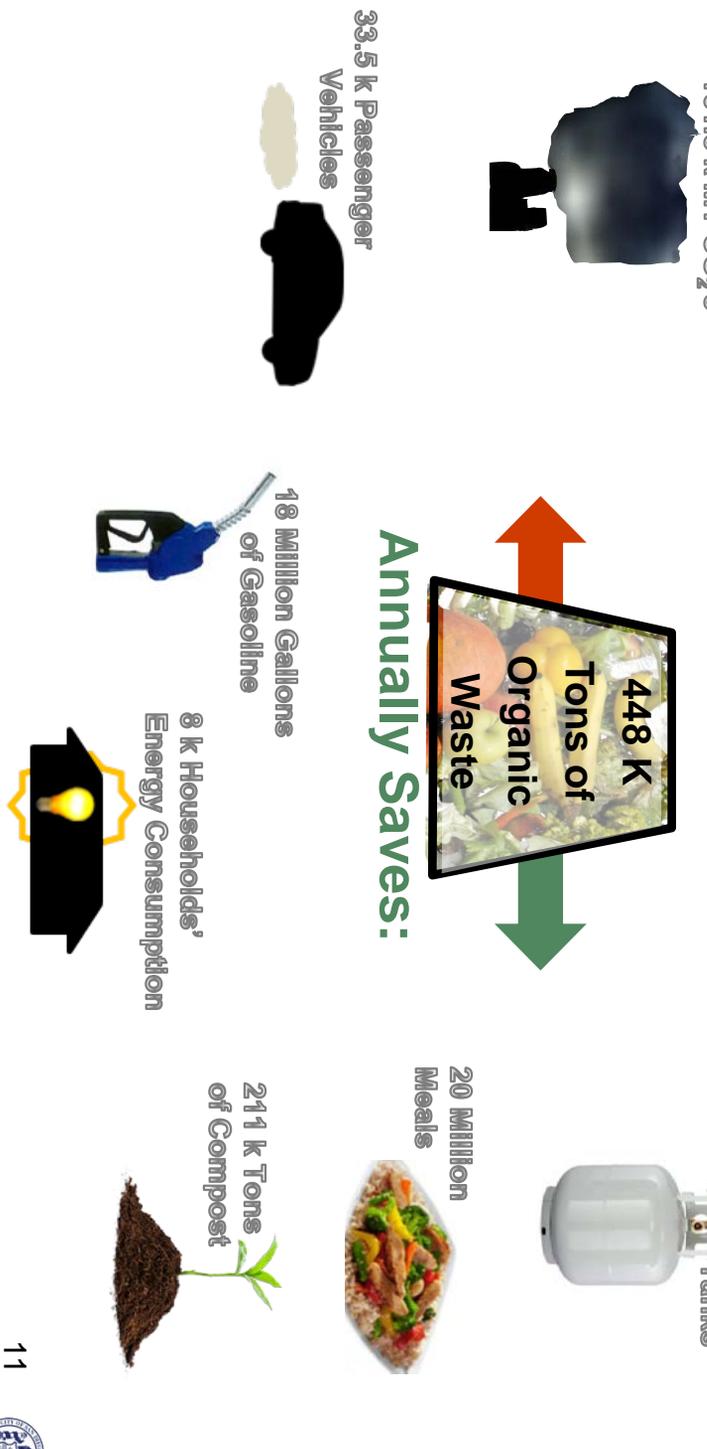


Zero Waste in San Diego: Potential for Organics

Zero Waste Means Resource Conservation and Emissions Reduction

San Diego disposed of approximately 500,000 tons of organic material last year. Of these, 448,000 tons could have been salvaged; 12,000 of these tons could have been made into 20 million meals. 422,000 of these tons could have been made into 211,000 tons of compost. Source reducing and composting this material can prevent 161,500 metric tons of CO₂ equivalent from entering the atmosphere. This is the equivalent to removing annual emissions from 33,500 passenger vehicles; conserving 18 million gallons of gasoline; conserving the energy consumption from 8,000 households; conserving 161,500 MT CO₂e

Saving & Composting



Zero Waste in San Diego: Total Potential

Recycling Can Save:

EPA WARM Model GHG Equivalencies

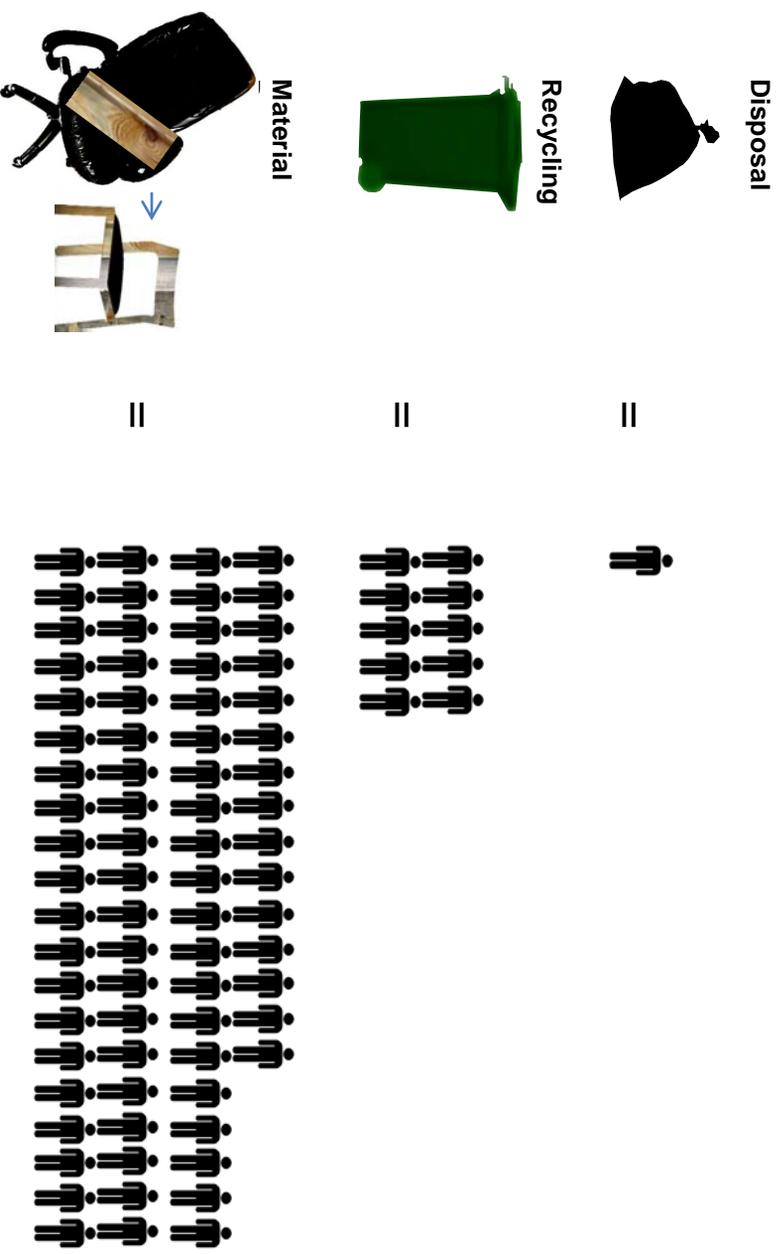
	Recyclables going to Landfills	771,500	Tons/Year
	GHG Emissions	777,500	MT CO ₂ e/Year
Equivalencies			
	Passenger Vehicles	236,000	Vehicles/Year
	Gallons of Gasoline	87,000,000	Gallons/Year
	US Home Electricity Use	39,000	Households/Year
	Propane Tanks	32,500,000	Tanks/Year



Zero Waste in San Diego: Potential

Zero Waste Means Jobs

Reuse of these materials can generate as many as 75 new green jobs and recycling can create 10 new green jobs for every 100,000 tons of material diverted.



Zero Waste in San Diego: 6 Bold Steps Toward Zero Waste

We have identified six key strategies to achieve these benefits:

1. Developing funding strategies that are compliant, sustainable, predictable, and incentivize desired behavior (e.g. charging for non-disposal services; providing discounted rates for separated recyclable and compostable materials).
2. Advocating Zero Waste policies (e.g. extended producer responsibility); implementing regulatory initiatives (e.g. the CRO and the Plastic Bag Reduction Ordinance); and focusing on local Zero Waste achievements (e.g. the Annual Waste Reduction and Recycling Award ceremonies).
3. Enhancing existing and developing new partnerships (e.g. social and environmental non-profits, franchise haulers) to reduce, reuse, recycle and compost disposed materials.
4. Informing, supporting and incentivizing businesses and residents in their reduction and diversion of discarded materials (through programs such as Commercial Food Scrap Composting Program and Backyard Compost Bin Voucher Program).
5. Enhancing collection programs (e.g. citywide weekly yard waste/food scraps collection, weekly recycling collection, and bi-weekly refuse collection).
6. Implementing new approaches for post-collection processing of discarded materials (e.g. a Resource Recovery Center and enhanced composting technology at the Greenery).

Develop funding strategies to support Zero Waste-based systems

Implement Zero Waste policies and regulations

Develop and evaluate existing partnerships to reduce and recycle

Inform and incentivize reduction

Enhance collection systems to optimize diversion

Enhance post collection diversion programs

75% by 2020, Zero Waste by 2040 !



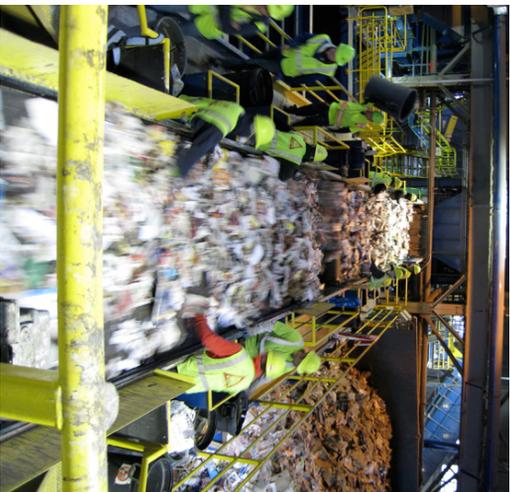
Zero Waste in San Diego: Acknowledging Our Community's Leaders

The implementation of these strategies, including the identification of specific programs and facilities will be done in a manner that acknowledges our residents, businesses, and community partners.



Zero Waste in San Diego: Honoring Labor

The implementation of these strategies, including the identification of specific programs and facilities, will be done in a manner that honors the **workers** who will be on the front line of Zero Waste in the communities they serve.



Zero Waste in San Diego: Acknowledging Our Industry Partners

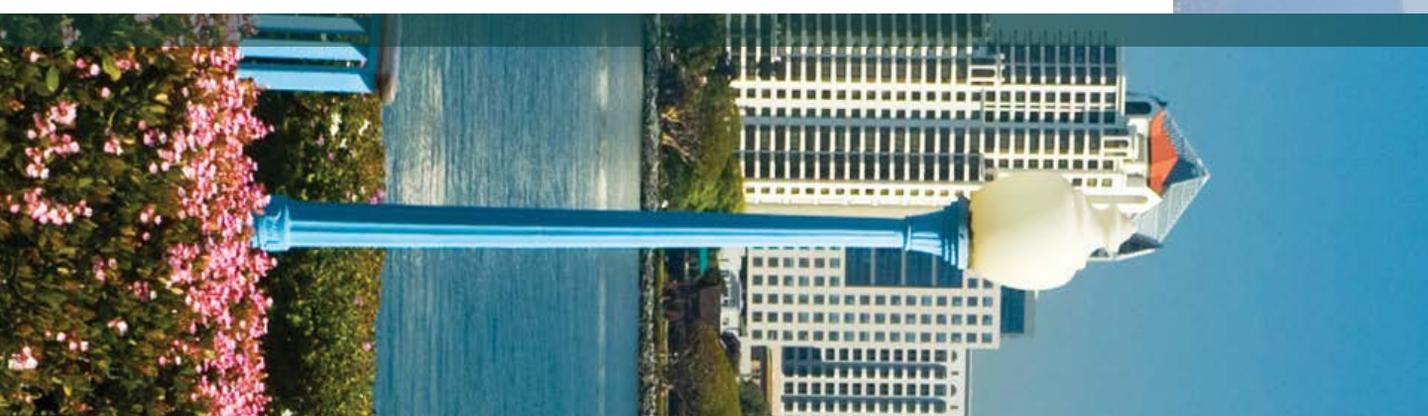
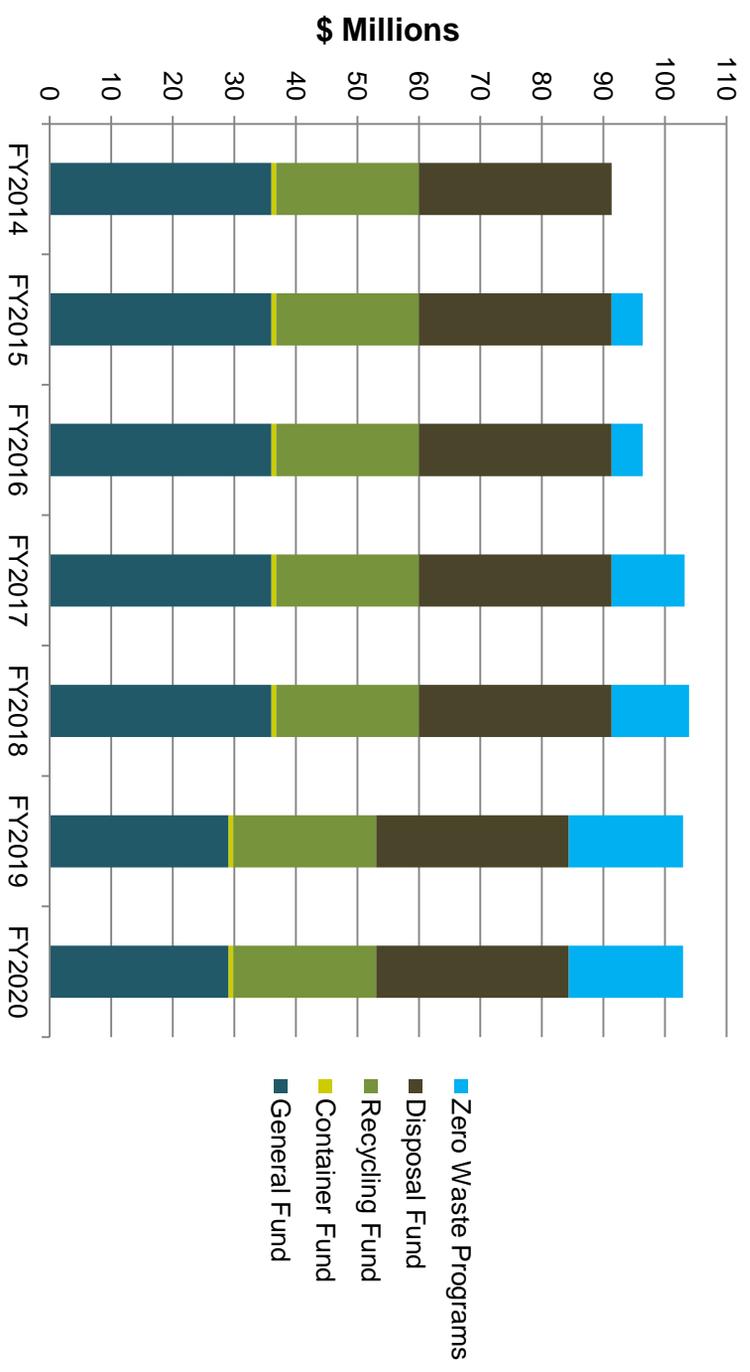
The implementation of these strategies, including the identification of specific programs and facilities will be done in a manner that honors our partners in discarded materials management.



Providing Solid Waste and Recycling Services Since 1968

Zero Waste in San Diego: Planning-Level City Cost Estimate

Yearly Planning-Level City Cost Estimate (2014 \$)





Zero Waste in San Diego Will:

Enhance the City's Relationship Within its Communities and Among its Partners

Dramatically Reduce the Reusable, Recyclable, and Compostable Materials that would otherwise be Buried in the City's Landfill

Extend Miramar Landfill Life and Delay the Need for Replacement Facilities

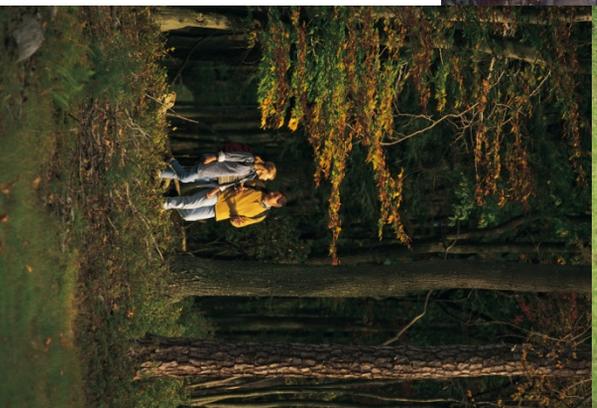


Zero Waste in San Diego Will:

Reduce GHG and Local Smog-forming Emissions

Create Local Green Jobs

Result in an Economically and Environmentally Sustainable City



End Notes

- A Worldwide Response
 - **UN Environmental Accords:**
 - » http://www.ci.berkeley.ca.us/Planning_and_Development/Energy_and_Sustainable_Development/UN_Environmental_Accords.aspx
 - **The World Bank**
 - » <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEVELOPMENT/EXTUSWM/0,menuPK:463847~pagePK:149018~piPK:149093~theSitePK:463841,00.html>
 - **The Treviso Priula Consortium**
 - » International Case Studies (quote edited to standard English)
 - **Nagoya, Japan**
 - » International Case Studies
 - **Vancouver, Canada**
 - » <http://geic.hq.unu.edu/ENV/files/InnComm%20Report/case%20study%207%20Japan.pdf>
 - **Curitiba, Brazil**
 - » International Case Studies
 - **Zero Waste South Africa**
 - » <http://www.zerowaste.sa.gov.au/>

End Notes

- A National Response:
 - **Boulder Office of Environmental Affairs**
 - » <http://www.greencitybluelake.org/images/economy/Boulder>
 - **Seattle Foundation**
 - » <http://www.seattlefoundation.org/npos/Pages/ZeroWasteWashington.aspx>
 - **San Francisco Environment**
 - » http://www.sfenvironment.org/sites/default/files/editor-uploads/zero_waste/pdf/sfe_zw_zerowaste_resolution_signed_by_mayor.pdf
 - **Austin Resource Recovery Department**
 - » <http://austintexas.gov/news/city-launches-curb-side-organics-collection-pilot-program>
 - **San Jose Environmental Services**
 - » HF&H Interview with Jeff Anderson
 - **Portland Water Bureau**
 - » <http://www.portlandoregon.gov/bps/article/268612>
 - **New York City Office of the Mayor**
 - » http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/planyc_2011_solid_waste.pdf



End Notes

- A Corporate Response:
 - **Dupont**
 - » http://www2.dupont.com/Surfaces/en_US/sustainable_design/DuPont_Zero_Landfill.html
 - **Apple Computers**
 - » <http://www.apple.com/environment/our-footprint/>
 - **Procter & Gamble**
 - » http://www.pg.com/en_US/sustainability/environmental_sustainability/
 - **General Motors**
 - » http://media.gm.com/media/us/en/gm/news_detail.html/content/Pages/news/us/en/2012/Oct/1019_La_ndfill-FreeBlueprint.html
 - **Amdahl**
 - » <http://www.wasterecyclingnews.com/article/19950612/NEWS99/306129948/amdahl-s-recycling-days-off-hauling-bill-drops-300-000-in-4-years>
 - **Hewlett-Packard**
 - » <http://www.hp.com/hpinfo/globalcitizenship/09gcreport/enviro/operations/waste.html>
 - **San Diego Wild Animal Park**
 - » <http://www.grrn.org/page/zero-waste-business-profiles>
- **The Opportunity**
 - Calrecycle Reports on Disposal Tonnage and Diversion Rates. See Calrecycle.com; <http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx>
 - <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx>

End Notes

- **Goldmine Going to Landfill**
 - Analysis based on Draft_ Overall City of San Diego Disposal Waste (provided by City Staff) and Commodity Pricing as of 4-30-2013 document (HF&H document)
- **Potential for Paper, Potential for Metal, Potential for Glass, Potential for Plastics,**
 - Analysis based on documents provided by City Staff and the following websites
 - » GHG emissions calculation: http://epa.gov/epawaste/conservetools/warm/Warm_Form.html
 - » Equivalencies: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>
- **Potential for Organics**
 - Analysis based on Analysis based on documents provided by City Staff and the following websites
 - » http://epa.gov/epawaste/conservetools/warm/Warm_Form.html
 - » Meals: <http://www.biocycle.net/2013/03/19/food-recovery-in-san-diego/>
- **Jobs Analysis**
 - Analysis based on USEPA statistics on job creation per 10,000 tons per year of materials management.
 - » <http://www.epa.gov/region9/newsletter/feb2011/greenjobs.html>



