

## **Here's what Cleveland could do if it were serious about reaching its goal of "Zero Waste"**

Mayor Frank Jackson's "Sustainability Cleveland 2019" program has set a goal of "Zero Waste" for the City of Cleveland. But the city's plan to reach this goal seems to have gone astray, as the City has decided instead to focus on building a municipal waste incinerator, and recycling "up to 25%" of its waste. Below are some examples of other U.S. cities who have decided to take a "Zero Waste" goal seriously.

### **Zero Waste Programs**

The Zero Waste approach aims to send zero waste, or as close to zero as possible, to landfills or incinerators, by recovering material and reprocessing it so that it can be reintroduced into the economic system. The goal is not only to improve public and environmental health by phasing out landfills and incinerators, but to improve the efficiency and stability of our economies. The concept, sometimes known as "landfill free", models itself on nature, where there is no waste, because every output is also an input for another process in a perfect, closed loop. It is about a shift in thinking from how to dispose of solid waste to how to manage our resources to avoid wasting them.

No community has yet achieved Zero Waste, but many have made great strides, recovering 75% or more of their waste stream. Because accomplishing Zero Waste requires rethinking and redesigning the foundations of our economy, it can only be done on a societal scale, after a critical mass of individuals, businesses and communities have made the shift. For that reason, the communities that have adopted the Zero Waste approach have set intermediate goals and timelines that are within their own power to accomplish.

Zero Waste programs are implemented at the community level through a combination of public education, policy, and changes in manufacturing. There is no one way to work toward the goal and each community must find its own path.

### **Case Study: Dubuque, IA**



Dubuque set a goal – 50% waste diversion in five years - and engaged a consultant to study the most practical path to reach it. Having enacted a volume-based trash fee in 2002, the city had already provided incentive to recycle among residents. The consultant helped to identify areas particularly ripe for improvement, including business recycling and construction and demolition debris recycling.

The recommendations took the form of a "road map" comprised

of both institutional and technological options. The options were selected based on 11 criteria including cost, diversion potential, acceptability, viability and more. Dubuque's plan prominently features building a Resource Recovery Park on the site of their existing landfill.

The vision for the Resource Recovery Park is that of a centralized waste diversion engine. The park would include a recycling sorting facility, reuse center, large compost facility, improved household hazardous waste facility, construction and demolition debris recovery facility and would serve as an incubator for future recycling based manufacturing.

### **Resource Recovery Parks – a 21<sup>st</sup> century alternative to landfills**

Resource Recovery Parks (RRP) provide a focal point for Zero Waste job creation and benefits to both the participating businesses and the public.

Participating businesses, including small entrepreneurs, can pool physical, financial, personnel, energy and service-related resources to facilitate start up and operation of their individual concerns. By co-locating a variety of materials recovery businesses in one place, a RRP can help transform one company's waste into another's feedstock. Examples of businesses that might locate in a RRP include:

- Salvage, repair, restoration or refinishing shops for furniture, appliances, antiques, art or electronics
- Collection and processing for electronics, computers and household hazardous waste
- Collection, and remanufacturing facilities for tires and latex paint
- Collection and processing services for recyclable materials including paper, glass, plastic, metal (including scrap metal) and textiles
- Collection and processing services for yard waste, food scraps, food contaminated paper, wood, soils and other putrescibles
- Collection and processing of construction and demolition debris including scrap lumber, doors, windows, plumbing fixtures, ceramics, concrete, asphalt, roofing materials, bricks and mixed demolition debris
- Estate organization services
- Goodwill Industries and other non-profit resale stores

- Retail resale stores including consignment stores for valuable items
- Green design and building professionals like building supply stores, LEED architects, landscapers and interior designers

The public will also benefit from bringing material to the RRP instead of setting it out to be sent to the landfill. Public benefits include:

- Minimization of wastes requiring payment for disposal
- Recovered value from the sale of valuable, but unwanted items
- Convenient “one-stop” option for purchase of lower-cost reused, repaired or recycled items

### **Case Study: Austin, Texas**

After deciding to work toward Zero Waste in 2005, the city of Austin, Texas engaged a consultant to prepare a Zero Waste Strategic Plan, which was completed after a year-long fact finding and public consultation process in 2008. The consultant began by studying Austin's solid waste management systems and what aspects of it were in the city's control. Next, he created an inventory of the materials (waste) generated in the area and existing infrastructure to reuse, repair, recycle and/or compost the materials. This process highlighted opportunities for improvements and market development for recovered materials.



Policy and program options discussed with the public and other stakeholders were organized into the following categories:

- Upstream – Actively advocate for legislation and programs that will incentivize or require manufacturers to take back their products and packaging, also known as Extended Producer Responsibility (EPR)
- Downstream- Reduce, reuse, recycle and compost all materials that are discarded for their highest and best use
- Green Business, Green Buildings and Jobs – Reintegrate post-use materials into the local economy by supporting green, sustainable and Zero Waste businesses. Given the opportunity, resources and incentives to do so, entrepreneurs will create new green collar jobs.

- Residuals management and Regional Coordination – Stop or regulate the flow of wastes from outside the area into landfills in the Austin area as the region reduces reliance upon them

The intention was not to adopt all options together, especially since some of them actually conflict with one another, but to create a list to shape the way forward and identify priorities. Further categorization of the options into those which required little, some or much political capital and resources also provided structure to the plan.

Next, the consultant analyzed the potential for job creation from recovering and diverting resources. The total waste landfilled in a year was broken down into twelve categories and the tons per year total for each category. Factoring in different equations for collection/sorting jobs, processing jobs and remanufacturing jobs, the consultant determined that Austin could generate 1,819 jobs from diverting all its waste from landfills.

### Some municipalities that have pledged Zero Waste

Community	Zero Waste pledge	Recycling rate at pledge date	Update, 2010
Nantucket, MA	In 1999	42% (3)	92% (15)
San Francisco, CA	In 2002, 75% by 2010, zero waste by 2020 (4)	62% (4)	72% (4)
Boulder, CO	In 2005, 50% by 2010 and Zero “or darn near” by 2025 (7)	30% (6)	50% Residential/20% Commercial (8)
Oakland, CA	In March 2006, 75% by 2010 and 90% by 2020 (5)	55% (5)	66% (16)
Dubuque, IA	In 2009, 50% by 2014	40%	40%
Los Angeles, CA	Adopted in 2008, the goals are 75% diversion by 2013, zero waste by 2025 (1)	62% (1)	As of March, 2009, 65% (2)
Seattle, WA	In 2007, 60% by 2012, 70% by 2025 (9)	48.2% (10)	51% (11)
Austin ,TX	In 2009, pledged 75% by 2020 and 90% by 2040	30% (17)	39% (17)
Fresno, CA	75% by 2012, Zero Waste by 2025 (14)	29% (12)	71% (12)

1- [http://www.zerowaste.lacity.org/files/info/fact\\_sheet/2009Feb2SWIRPFactSheet.pdf](http://www.zerowaste.lacity.org/files/info/fact_sheet/2009Feb2SWIRPFactSheet.pdf)

2- [http://www.ci.la.ca.us/san/solid\\_resources/recycling/index.htm](http://www.ci.la.ca.us/san/solid_resources/recycling/index.htm)

3- <http://www.wasteoptions.com/nantucket.htm> & <http://www.mass.gov/dep/recycle/priorities/munirate.pdf>

4- [http://www.sfenvironment.org/our\\_programs/program\\_info.html?ssi=3](http://www.sfenvironment.org/our_programs/program_info.html?ssi=3)

- 5- <http://www.oaklandpw.com/AssetFactory.aspx?did=2123>
- 6- [http://www.bouldercolorado.gov/files/Environmental%20Affairs/Waste%20Reduction/r-zero\\_waste\\_final\\_5-02-06.pdf](http://www.bouldercolorado.gov/files/Environmental%20Affairs/Waste%20Reduction/r-zero_waste_final_5-02-06.pdf)
- 7- [http://www.bouldercounty.org/sustain/pdf/Zero\\_Waste\\_Res\\_2005-138.pdf](http://www.bouldercounty.org/sustain/pdf/Zero_Waste_Res_2005-138.pdf)
- 8- *Phone conversation with Cynthia Ashley of Eco-Cycle, 9/10/10*
- 9- <http://www.cityofseattle.net/council/issues/zerowaste.htm>
- 10- [http://www.cityofseattle.org/util/groups/public/@spu/@usm/documents/webcontent/spu01\\_005874.pdf](http://www.cityofseattle.org/util/groups/public/@spu/@usm/documents/webcontent/spu01_005874.pdf)
- 11- <http://www.djc.com/news/en/12021391.html>
- 12- *Phone and email correspondence with Kate Bailey of Eco-Cycle*
- 13- <http://www.ci.austin.tx.us/sws/zerowaste.htm>
- 14- <http://lakecountyil.gov/swalco/Documents/Fresno,%20CA%20-%20Zero%20Waste%20Strategic%20Action%20Plan.pdf>
- 15- <http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20091016/NEWS11/910169981>
- 16- *Email correspondence with Mark Gagliardi, City of Oakland Public Works Agency*
- 17- *Conversation with Robert Gedert, Solid Waste Service Director, City of Austin.*