

Don't Waste This Opportunity

Policy Recommendations for a Path to
Zero Waste and Good Jobs for Boston



Boston Zero Waste Task Force

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Boston Zero Waste Task Force:

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Boston: Current Landscape

Boston is a national leader on many fronts: health care, the information economy, energy efficiency. However, the city's waste diversion rate has been subpar for many years compared to cities with leading programs; despite recent improvements, residential recycling rates have failed to pass 20%. Factoring in the better performing commercial sector yields an approximate 30% rate, compared to a national average of 34%. While cities' reported rates are sometimes reflections of different indicators, several comparably sized cities have seen dramatic results using policy innovations, such as Austin (>40%), Seattle (60%), and San Francisco (80%).

Communities have little incentive to prioritize waste diversion if its benefits, especially those related to economic opportunity, do not accrue in Boston. And the commercial sector- which comprises well over half the city's waste- currently operates in an open market system. Businesses each must contract for collection separately. This happens largely without City regulation and with minimal state oversight, leaving little room for incentivizing improvement.

Aside from what is reduced, reused, remanufactured or recycled, almost all of Boston's residential waste is currently incinerated, resulting in significant public health costs and greenhouse gas emissions. Along with many toxic substances, waste-to-energy incinerators emit more CO₂ per unit of electricity produced than coal plants.¹ And disposal, whether by incineration or land-filling, produces ten times fewer jobs than recycling,² while destroying many materials that could create new economic opportunity in Boston communities: for every item burned or buried, a new one must be extracted, processed and manufactured from raw materials. Yet recycling and collection and processing can be dangerous and often lack adequate worker health and safety protections. Industry workers also often face minimum wage jobs with no room to advance. It is time for Boston to adopt a new paradigm.

Enter "Zero Waste"

Zero Waste (ZW) is a re-envisioning of how society relates to production, consumption and disposal of the products and materials we use every day. Often defined as 90% or more reduction and diversion, its goal is to end the generation of toxic and unnecessarily wasteful products through systemic redesign, channeling remaining discards into reuse or recycling for the creation of new products, and using those materials as engines of local job growth. It requires coordination between engaged producers and consumers, governments and citizens, neighborhood activists and neighbors. As we are starting to see in community after community, ZW initiatives are working and producing significant benefits.

The benefits of reduced disposal, and increased diversion through reuse, recycling and organic waste processing are well-established: For every ton recycled instead of disposed, the City

¹ US E.P.A. <http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html>

² "More Jobs, Less Pollution: Growing the Recycling Economy in the United States," Tellus Institute, 2011

would save at least \$56.³ With 240,000 tons of residential waste currently disposed annually,⁴ the City has an opportunity to create a new revenue stream through increasing its share of proceeds from sales of recyclables. In addition, a major recent study showed that increasing the national recycling rate to 75% from a current average of 34% would create 1.5 million new well-paying, local, long-term jobs.⁵ Cities with top diversion programs understand that organics are among the largest components of the waste stream, with the methane they release during decay also a potent climate agent. Organics processing has proven to be a significant diversion strategy and creator of green economic activity.

In places like Austin and Seattle, policy infrastructure overhauls have set the stage for dramatic growth in waste diversion and significant positive impacts on city budgets. While no two cities' physical, political and economic landscapes are identical, there is much to be learned from best practices elsewhere. Boston has the chance to create a unique, world-class model of waste policy by embracing the principles of Zero Waste, alongside strong worker and environmental protections. By allocating reasonable resources for staffing, education, engagement and enforcement, Boston can draw up a citywide vision and begin Zero Waste planning, providing a robust program for this least developed aspect of the city's Climate Action Plan.

How do we get there?

Extending Boston's expiring current solid waste contracts until 2015, as advocates request, will afford time to improve the process and lay the groundwork for ZW policy. **Within the year, the city must initiate a city-wide educational and Zero Waste Master Planning process.** Potential funding sources include contract winners, and state and private grants. The Plan should identify materials in the waste stream that can be diverted and ways to boost participation, as well as build up the local and regional reuse sector and end-markets for diverted materials.

For a successful ZW program, public input should inform every stage of the process, using traditional outreach methods such as community meetings as well as social media platforms. A facilitator should be contracted to **elicit a community-led consensus** that brings together a full range of stakeholders and delivers a world-class Zero Waste plan. As diversion increases, the City can ensure jobs created stay local, providing strong incentives for residents to educate each other on its benefits, and for neighborhoods not diverting at high levels to do so.

Finally, the City should accurately **account for climate emissions from the solid waste sector** by using a product lifecycle assessment. If the true climate impact of this sector were understood by policymakers, the issue would undoubtedly escalate in priority, and an updated calculation of savings would result in improved implementation funding for solid waste diversion.

³ "Boston's Trash and Recycling Contracts," Boston Public Works Department informational presentation, 9/13

⁴ "Boston's Trash and Recycling Contracts," Boston Public Works Department informational presentation, 9/13

⁵ "More Jobs, Less Pollution: Growing the Recycling Economy in the United States," Tellus Institute, 2011

About the Task Force

The Boston Zero Waste Task Force was convened in June 2013 by member groups of the Boston Recycling Coalition, as a means to recommend Zero Waste policies for the City of Boston that are informed by a full range of stakeholders. Until now, the voices of key stakeholders in the city's waste, recycling and composting system - and consequently their interests - have been absent from policymaking. This Task Force has met six times since June 2013, and represents small startups, large businesses and institutions, policy experts, environmental advocates, municipal agencies and both current and hopeful future workers.

Members of this Task Force also offer our services to the City in the event that we can be of service during a Zero Waste planning process. Comprised of stakeholders representing diverse residential, commercial, institutional and labor constituencies, this body has weighed the implications of a range of policy options and reached a consensus. We recommend the following policies and timeline for adoption by the City of Boston.

The Task Force recommendations are aimed at four primary goals:

1. Develop policies to move Boston's overall diversion recycling rate to 50% by 2020, 75% by 2030, and Zero Waste by 2040.
2. Establish a city-wide Zero Waste planning process that prioritizes meaningful community engagement and emphasizes the creation of good, green jobs to achieve the above goal.
3. Scale up programs for diverting food and yard waste, and provide incentives and assistance to promote inclusion of small, local businesses.
4. Guarantee workers living wages and safe work conditions in the city's waste and recycling contracts.

Short-Term (1 year: 2014)

Zero Waste Planning:

- The City **sets a formal goal of achieving Zero Waste**, with benchmark targets along the way, and hires an independent expert consultant to facilitate a planning process, as has been successful in cities around the country. The City will then convene a Zero Waste Master Planning process, and engage diverse stakeholders in the visioning, including:
 - state and city solid waste staff;
 - industry, labor and worker representatives;
 - Zero Waste and clean technology experts;
 - large property owners, managers, and tenants;
 - large waste generators;
 - elementary, secondary, vocational and college representatives;
 - community, environmental and religious organizations; and
 - officials from other municipalities with successful diversion programs

Contracting:

- **Replace the current Invitation for Bids (IFB) on hauling, recyclables processing, composting, and disposal contracts with a Request for Proposals (RFP) process, which allows for weighting other desirable factors than lowest price.** RFPs should be written to promote increased diversion, climate mitigation, local hiring, etc. Smaller, responsible local businesses, especially those run by women and minorities, should be allowed to compete through provisions for subcontracting, or the division of one waste district (ideally the one with lowest diversion rates) into smaller innovation districts. While increased diversion will save money through lower disposal costs, the recyclables processing contract can also be written to encourage competition among bidders for highest returns to the city from recyclables sales income, proceeds of which should be earmarked for diversion education- both in schools and saturating the city- and implementation).
- **Ensure that the city's Living Wage Ordinance applies to workers providing services under recyclables processing contracts**, in line with the other contracts, since they too are providing a service. The next round of contracts must also require safety protections, and prevent subcontracting of poorly-paid temporary workers.

Hazardous waste

- **Expand opportunities for drop-off of hazardous materials and appliances-** both collection frequency, and number and dispersion of locations. Explore policies requiring producers of hazardous materials to take them back or pay for recycling them. Provide residents with information and increased access to donation and reuse programs, so

that less furniture and fewer usable appliances are placed curbside for trash collection.

Collection frequency

- Boston should **increase the ease of recycling** by shifting collection frequency where needed, so that trash collection occurs no more than once per week, and recycling is at least as frequent, or increases over time.

Organic waste:

- Continue and expand the farmers' market composting pilot launched in 2013.
- **Pilot curbside organic waste collection** in one waste district, to be expanded citywide.
- Assist organic waste collection and processing startups with business development.
- Help procure or allocate city land for windrow or in-vessel composting, vermiculture and/or anaerobic digestion.
- Promote integrated energy and agriculture systems at compost/organics sites
- Convene an organics stakeholder roundtable to map infrastructure development.

Medium Term (1 - 5 years: 2015-2020)

Zero Waste Plan Implementation:

- The City will now be implementing the Plan, ensuring that as strategies are developed, community input and engagement is prioritized. If the policies set out in a Zero Waste plan are to be successful, buy-in from neighborhoods and businesses alike will be essential. The Plan should include a comprehensive strategy for reducing waste, beginning with creating a baseline for waste generation as compared to other cities. The City will follow regular benchmarks instituted by the Plan for achieving waste reduction, reuse, recycling and organics processing targets, and conduct ongoing evaluations to enable adjustments when necessary for maximum effectiveness.

Organic Waste:

- Boston should **aggressively scale up its organics infrastructure**, and develop a plan for residential and commercial organic waste that uses the range of technologies and methods available. The residential curbside organics pilot should expand citywide, and the City should help small businesses exempt from the Fall 2014 organics ban prepare for the expected future need for compliance, with connections to local organics haulers and processors. We recommend the City also build on the existing body of research with feasibility studies for **community-scale anaerobic digestion** (AD) facilities, as a method of processing clean organic waste into renewable energy while growing the local green economy. Other bioenergy capture from organics in the waste stream should be evaluated and supported -specifically biothermal systems (heat from composting) and GHG recovery and mitigation on compost sites. This would involve

helping assemble private, municipal, state and/or federal resources, including renewable energy development funds, and delineating a strong public health and safety regime. AD can process organic waste, and also turn the biogas produced into electricity-- to power local facilities or sell back to the grid for new revenue. At the commercial level, the City should act on the finding of practitioners that improved recycling with organics diversion has the greatest environmental, economic and operational benefits for generators, to educate businesses on regulations and their benefits. Boston has a chance to create a new model using both small and large-scale infrastructure, that accomplishes both environmental and economic goals

Residential mandates

- Boston should elicit desired changes in residents' behavior by instituting a mandate to separate recyclables and/or organic waste from trash. Haulers can be empowered to refuse trash pickup if they see more than a specified percentage of divertible materials in trash bins, as in Seattle, where organics are now covered as well. Providence, RI doubled its diversion rate in one year with a 'no bin, no barrel' policy requiring residents to put out recycling bins in order for trash to be collected.

Commercial mandates

- Boston should help drive up business diversion by instituting a commercial diversion mandate, as recommended by the Boston Climate Action Leadership Committee.⁶ Requiring businesses to play by the same rules removes any competitive disadvantage to diversion efforts, and also lowers disposal costs. The City will need to play a key role in assisting businesses with compliance, and providing incentives to divert.

Multi-family housing:

- Require Boston Housing Authority complexes to install recycling and compost facilities, and all new multi-family construction to include recycling and organic waste collection. Assess the feasibility of covering these buildings under residential contracts. Provide educational materials so residents understand why and how to recycle and compost.

Neighborhood ambassadors:

- Neighborhood leaders can be **effective agents of positive change**, and should be recruited to serve as local 'ambassadors' promoting diversion and educating neighbors on its benefits, among other desirable outcomes. Boston should develop a network of such volunteers who coordinate to educate and motivate their neighbors. Ambassadors could also play an enforcement role, conducting informal curbside inspections on collection days and educating residents who are not in compliance.

⁶ Sparking Boston's Climate Revolution, 2010
http://www.cityofboston.gov/Images_Documents/BCA_full_rprt_r5_tcm3-19558.pdf

“Save Money and Reduce Trash”:

- One of several solutions mentioned in Boston’s current Climate Action Plan⁷ that could dramatically reduce disposal and increase diversion is SMART: Save Money and Reduce Trash (also called “Pay As You Throw”), which incentivizes diversion and makes visible the high cost of trash disposal or solid waste disposal. Boston should pilot SMART through a City Council resolution and contract language alterations. We suggest a hybrid model, where all residents are guaranteed one bag of trash pickup weekly, with succeeding bags charged an extra fee, and possible rewards for producing less trash. Recycling would be paid for through trash fees. SMART requires careful implementation for success, including broad education before rollout, mitigating impacts on low-income residents and multi-family buildings, and prevention of illegal dumping by fee evaders. However, results in cities around the country have been nothing short of remarkable.

Reuse:

- When it comes to jobs creation, reducing climate emissions, and saving cities money, reuse ranks even higher than recycling.⁸ Removing still-useful items from the waste stream can dramatically reduce climate impact, and reduce costs for government, individuals, and organizations. The City should **create and fund a reuse coordinator position**, to help develop and support local reuse businesses, and expand and promote access to already existing options like donation programs for moving days at local colleges. The City should help maximize the **rental, repair, donation, salvaging and ‘freecycling’** of usable goods, by assisting reuse startups across city neighborhoods through zoning, permitting and access to financing; development of training programs in vocational schools and community colleges; and public education. A robust public awareness campaign and coordination among immediate stakeholders will both lead to a substantial drop in disposal and benefit local reuse nonprofits and businesses.

Single stream:

- The City should require recyclables processing contractors to report on residual percentages and contamination, to show the true recycling rate and to analyze what is not being recycled. This feedback loop is important for learning how to improve education and for requiring better processing when necessary. Hauling and processing contracts also should require best practices for single stream implementation.⁹

Schools:

- Require Boston Public Schools to ensure that **recycling and composting are no harder than throwing waste in a trash bin**. Through proper education, and adjacent receptacles with clear and consistent signage, BPS students will learn how to recycle in

⁷ ðA Climate of Progress, ð 2011 http://issuu.com/ees_boston/docs/a_climate_of_progress_-_cap_update_

⁸ <http://ec.europa.eu/environment/waste/framework/index.htm>

⁹ <http://conservatree.org/learn/SolidWaste/bestpractices.shtml>

the classroom, eventually encouraging their families to recycle at home.

- Develop and implement a **sustainability curriculum**, including a unit on waste diversion. Look to communities like Cambridge, where such initiatives in schools are widespread.

Long Term (5 years +: 2021 and beyond)

Zero Waste Plan Implementation:

- Boston will have surpassed 50% diversion, and have in place the proper funding, staffing and policy framework to reach the Plan's ongoing diversion benchmarks.

Extended Producer Responsibility:

- In order to reach Zero Waste, producers of what has the potential to become waste need to be engaged to pursue responsible practices. Boston should join forces with other cities and states to enter into collective negotiations with producers of particularly problematic goods or materials, including electronic waste, to either eliminate the problem or take responsibility for recycling their products. The goal of Zero Waste is possible only through redesign of the entire system, from production to disposal.

Bag and styrofoam ban:

- As communities around the world have begun to do, Boston should implement a ban on single use plastic bags and polystyrene containers for retail use, and assist retailers with other options. The environmental and public health damage from incinerating these items, water pollution, and threats to wildlife is severe, while alternatives are plentiful.

Public places:

- Ensure that recycling and food waste receptacles are available in all public places.

Manufacturing and remanufacturing locally:

- The City should help retain recyclables and reusable items in the region by collaborating with workforce development agencies, regional planning bodies, state agencies and other relevant parties to build the infrastructure needed for small- to large-scale manufacturing and remanufacturing industries based on discarded materials. Boston is well-placed to help launch a mini-industrial revolution across our region, with its many idle 'gateway communities,' by stimulating this capacity, and demand for locally manufactured goods made from recycled feedstock. This smart investment comes with handsome rewards: dramatic climate emissions reductions from reduced transportation of goods from abroad, and by far the highest number of new, well-paying jobs produced by any sector associated with solid waste processing.¹⁰

¹⁰ "More Jobs, Less Pollution: Growing the Recycling Economy in the United States," Tellus Institute, 2011