

Food Waste Recycling: The Future Starts Now







The inaugural Waste360 Recycling Summit (September 2015, in Chicago) gathered more than 350 professionals from municipalities, waste generators, and solution providers to discuss the state of today's recycling industry and—perhaps most importantly opportunities for the future.

One of the topics that got significant airtime at the event was food-residuals recovery. Speakers discussed the importance and logistics of diversion for these types of recyclables; how to extract value; and how to process the materials in an efficient, sustainable way. A key takeaway for attendees was that organics recovery would be accomplished successfully only when financially sustainable business plans support such efforts.

One of the Summit's sessions focused specifically on "Food Waste Recycling Trends & Recommendations." Steven Finn, Regional VP of Casella Organics (an organics recycler based in Portland, Maine), discussed lessons learned—and the best ways for communities to think about and initiate food-waste programs. In this download, we'll dig deeper into these insights and recommendations.









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Four Opportunities in Food Waste

Casella Organics has spent three decades recovering value from organic and mineral byproducts in the Northeastern U.S.; currently, it diverts more than 400,000 tons of food waste per year. The company's experience and expertise puts it in a unique position to offer advice to governments, recyclers, and customers who wish to embark on a new foodbased program (or refine an existing one).

Finn points out that, "Food-waste recycling is where traditional recycling was 25 years ago." There is a lack of necessary infrastructure, a wide variety of approaches, a patchwork of state/local regulations, and a common misperception that recycling should be "free." Also, the prevailing thinking a quarter-century ago was that, "People will never sort their trash." Now, commercial and residential curbside recycling is widespread, and most communities can't imagine going back.

But today the new question is, "Who is going to bother sorting food waste?" The practice may not yet be mainstream—but Finn believes that, with the right strategies, it can be. He envisions a day where food-waste recycling is a standard value-added service offering wide benefits for "people, agriculture, soil, water, energy, and climate." So how do we get there?

Finn points to four opportunities in food-waste recycling:

- 1) There must be smart policies around infrastructure,
- 2) There is not a one-size-fits-all solution (we need to allow for innovation),
- 3) An overemphasis on diversion quantity can negatively impact quality (it is important to strike a balance), and
- 4) It is important to dispel the myth that recycling is free while reminding people that it's still beneficial.







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Smart Policies

The matter of smart policies goes back to the old chickenor-egg dilemma. Investors want to make sure there are customers and a recurring supply of appropriate food waste before they shell out big bucks to support a new digester. But food providers/customers want to see an actual digester before they enter into a contract to send their waste there. Finn asserts that smart public policy can play an important role and offers the following recommendations of actions that can help:

- Offer financial incentives for companies to build new food-waste facilities
- Offer regulatory relief to remove siting barriers
- Implement mandates or bans thoughtfully
- Utilize education and outreach to increase public awareness and appreciation
- Enact market measures to encourage recycled-content soil/fertilizer products

At the same time, every state is unique and offers its own set of challenges, opportunities, and realities. Case in point: Sue Long, Environmental Impact Manager at Starbucks Coffee, told Summit attendees about an issue her company faces the fact that recycling containers in its U.S. stores necessitate 52 different sets of signs because of different rules and regulations across the country. Finn reminds us that policies need to be crafted at local levels with effective stakeholder engagement and communication.









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No One-Size-Fits-All Solution

There are, of course, countless ways to collect and manage food scraps—through food banks, converting it to animal feed, composting, anaerobic digestion, rendering, use in biofuels, on-site processing, and landfills. And again, every customer and community is unique. So, based on metrics such as population density, disposal economics, and the level of local subsidies, solutions should be implemented accordingly.

Public policy must be flexible and responsive, not dictating specific approaches or artificially propping up one solution over others. There is also the issue of being practical and realistic—some food waste is not yet suitable for recycling– either because of quality, contamination, or distance from processing and market opportunities (in these cases, a landfill with gas capture is the best solution for now).

Diversion Quantity vs. Quality

Certainly, enthusiasm for food-waste recycling is encouraged at all levels (e.g. state, county, corporate, and residential) but education and regulation is paramount to setting up a successful program. Without the necessary thought and care, compost facilities can end up with well-intentioned piles of poorly processed or contaminated food waste, which doesn't do anyone any good. Finn says that diversion mandates and disposal bans must be paired with guidelines for responsibly returning materials to the land. And it is only through a balanced focus on quality and quantity that innovation can take root, allowing food recycling to be successful on both large and smaller scales.







The city is now helping residents sign up for private residential collection and **providing guidelines for backyard composting**; all part of a thoughtful and measured process that could eventually lead to citywide curbside compost. A recent pilot program in Charlottesville, Virginia, put Finn's idea of balance to work. Maya Kumazawa, Public Works Program Coordinator observed that, "As other cities had demonstrated, establishing a composting component at the farmers' market could be a springboard for increased composting awareness and participation." So, through a grant from the Environmental Protection Agency, Charlottesville tested out this idea. It partnered with an environmental non-profit, GreenBlue, to handle market waste, and Black Bear Composting provided composting services. The farmers' market program commenced in April 2015, getting seven participants in its first week. But by October, 53 individuals were bringing kitchen waste to the market for drop-off (in the process, nearly 5,500 pounds of waste have been diverted from landfills).

In addition to collecting food waste, the City of Charlottesville wanted to provide education and collect data to inform future composting discussions. "Everyone that walks up, I say, 'Hey, can I help you with all your trash?"" recalled Ryan Cooper of GreenBlue. "A lot of people have no idea what to do with it. They don't know what's recyclable. They don't know what goes to the landfill. And they often don't know what can be composted." All in all, the pilot program has been a big success, though on a small scale. Eric Walter, Chief Composting Officer at Black Bear, noted that it "put some real numbers behind the anecdotal data that locals want a composting option." The city is now helping residents sign up for private residential collection and providing guidelines for backyard composting; all part of a thoughtful and measured process that could eventually lead to citywide curbside compost. The quantity may be small for now, but it is still meaningful—and pilot programs such as these can useful stepping-stones to bigger and better programs.







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Food Recycling is not Free

Finn points to a cold hard truth about food-waste recycling: it usually doesn't save money (except in case of certain large generators). With that in mind, it is still worth doing, and there is a need to be transparent about the costs and benefits. The costs may seem off-putting at first, but the range of important benefits goes a long way in offsetting them.

Dr. Sally Brown, Professor at the School of Forest Resources at the University of Washington, spoke to attendees at the Summit about the significant benefits to local communities from food-residuals diversion. Some of these include reduction in greenhouse gas emissions, improved nutrient recycling, reduced water usage, and increased crop yields. She noted that, from the revised EPA Waste Reduction Model (WARM) alone, the net benefit for landfill diversion and composting food scraps equals 0.71 tons CO2 per wet ton food scraps including a soil carbon credit. Finn offers additional benefits recycling companies can consider, including support for local agriculture, alleviating local hunger and poverty, protecting the climate, engaging customers, building a brand, and being a better global citizen.

That said, Finn advises against making the same mistakes that were made during the first wave of recycling efforts in the 1980s and '90s, and warns that unrealistic expectations are shortsighted. Recently, Waste360 asked a panel of waste professionals to weigh in on whether they felt we are currently paying a price for creating the notion that recycling is free. Bill Moore, President of Moore & Associates agreed that this was "a strategic error by the industry." He went on to say that, "Recycling is just one form of solid waste management that must compete with others and, except for very few select materials, has a cost associated with it."







It is time to be upfront about not only the **benefits of food-waste recycling** but also the costs.

Bruce Walker, Solid Waste & Recycling Program Manager for the City of Portland, Oregon noted that, "Many years ago our program stopped using the term 'free' for recycling services. There are costs for providing recycling collection that we include in the rates charged to our residents." And Michele Nestor, President of Nestor Resources Inc. points out that, "We touted issues like the avoided cost of disposal, resource conservation, the value of the commodities...but we never accompanied those promotional pieces with the reality that we now had two trucks, two drivers, two or more facilities to manage things."

As a case in point, we look at the City of Oakland, California. It implemented an ambitious program to divert food waste, but as higher collection costs were passed on to residents, "people began just throwing their food into the regular trash again," observed Pat Sullivan, SVP and Managing Director at SCS Engineers. Consequently, for better or worse, the city subsidized the costs of the collection program. But not all communities are in a position to do so.

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Get in on the discussion

The latest trends in food waste, composting, and organics recycling will take center stage at the upcoming **WasteExpo conference**, June 6-9, 2016 in Las Vegas.

Join the discussion and **save 25% (plus get FREE Exhibit Hall admission!)** with code PURL6 Visit **www.wasteexpo.com** for more information and to register today.

Looking Toward the Future

It is an exciting time in the recycling industry, as food-waste collection and diversion becomes more and more viable, and recent developments across the country are encouraging. As part of its OneNYC plan, New York City aims to achieve zero waste (going to landfills) by 2030. "Environmental and economic sustainability must go hand in hand-and OneNYC is the blueprint to ensure they do," said Mayor Bill de Blasio. Also, two government agencies (the EPA and USDA) have recently established the country's first food-waste-reduction goal, aiming for a 50% decrease by 2030. "The United States enjoys the most productive and abundant food supply on earth, but too much of this food goes to waste," said Agriculture Secretary Tom Vilsack. The agencies will partner with the private sector, charitable organizations, faith-based organizations, and local, state and tribal governments on these efforts.

Ultimately, thoughtful policies at state and local levels can set the stage for innovative, sustainable food-waste solutions recognizing that each region has its unique challenges and opportunities. The economics of the issue also warrant careful consideration: who should bear the cost, and how should fees be structured? Above all, the benefits of foodwaste recycling are significant for communities that elect to do it; the time is right for both waste processors and waste generators to explore the opportunities.

