

Stakeholder Meeting

Dick Lilly

Seattle Public Utilities

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Cedar Grove Composting



Solid waste agencies like Seattle Public Utilities and businesses...

- Have potential for great partnerships.
- Shared goals.
- Will develop synergy – and better results – from working together.
- So, let's look at what we're doing now.



Why are we here?

Seattle's recycling and composting programs leading the nation



Ongoing success depends upon ongoing education and collaboration

But first, the bigger picture...



Two parts to the solution.

1. Source reduction

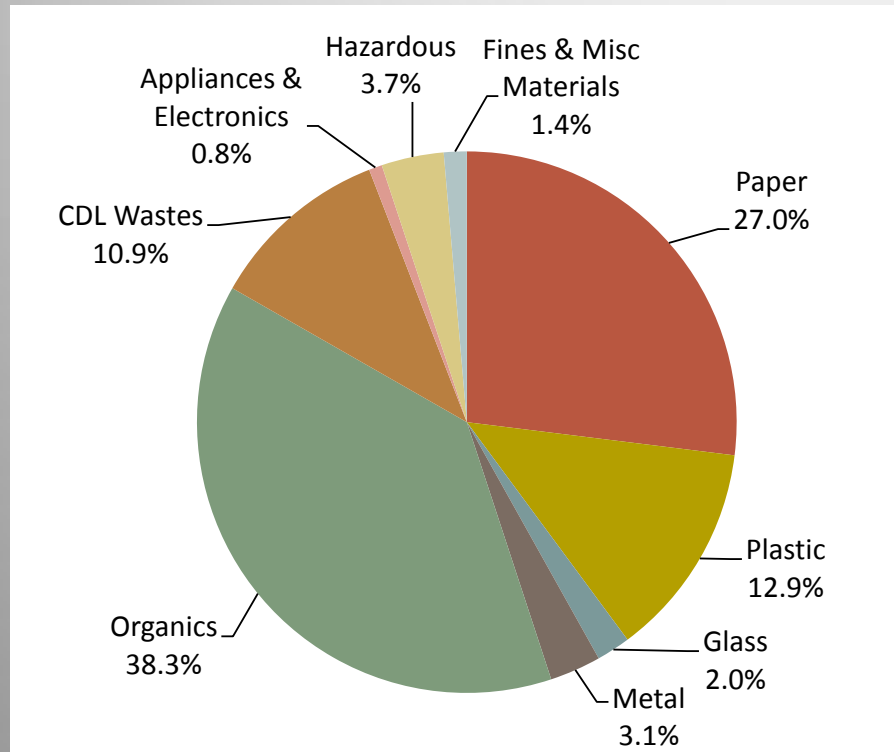
Best because less is created and consumed in the first place.

2. Waste diversion and recovery

Biggest because a really significant tonnage of organics can be diverted from landfill.



Still, commercial food waste remains the biggest problem – and opportunity.

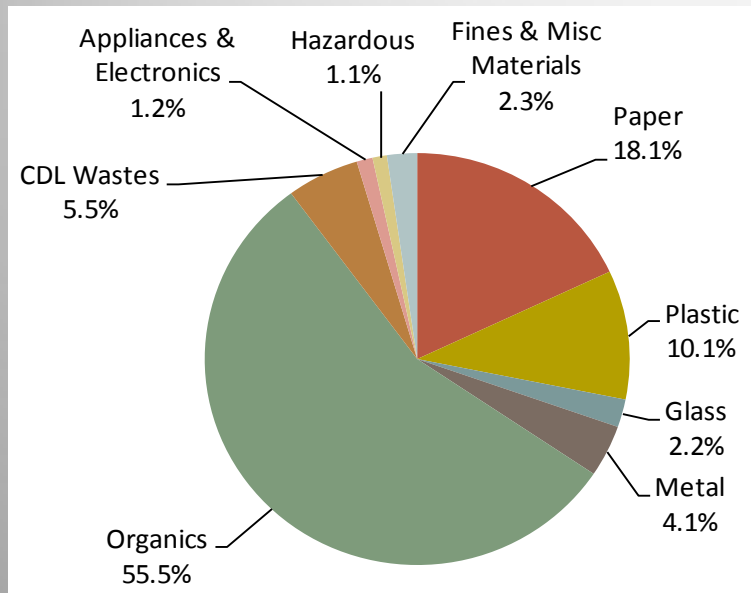


Commercial waste (2012 data)

Food waste alone is almost 30%.

That's more than 40,000 tons still in the garbage every year.

Residential is about the same.



**Food waste
alone is
almost 30%.**

**That's more than
33,000 tons.**

2010 data

--not including 80,000 tons
composted that year.



It's crucial to keep organics – food and yard waste – out of the landfill.



Organic material generates methane – a potent green house gas – in anaerobic decomposition.

What makes it work?

1. **A strong regional composter.**
 - ☐ Based on established residential Food and Yard Waste collection.
2. **Product testing to prove compostability.**
 - ☐ So restaurants know what they can use.
3. **Strong drive to increase commercial food waste collection for composting.**
 - ☐ Synergy with front-of house compostables disposal in quick serve restaurants (QSRs).
4. **Thanks to industry, increasing availability of compostable service ware.**
 - ☐ From 70 to 700 products in 3 years.



Like dozens of cities in the West, Seattle started with an EPS ban.

A little history:

The City Council's "Zero Waste Resolution" in 2007 had this to say about consumer products:

"By mid-2008, SPU will conduct a comprehensive study of products, packages and ingredients that could be banned or otherwise discouraged...."

"Initial products for review will include non-compostable plastic shopping bags and Styrofoam food containers."



But just banning EPS wasn't exactly a good thing to do.

Our study told us:

All the replacements for EPS food service ware were worse for the environment.

- Heavier – more costly to ship.
- Denser – used more material.
- Eternal – never break down in a landfill (though that also applies to EPS).
- And usually not recyclable – certainly not when contaminated with food – but neither is EPS.



Compostable packaging is key.

For QSRs compostable service ware and packaging helps capture leftover food, diverting it from landfill.

Recyclable products are discouraged except for take-out orders.

Food contamination prohibits most recycling – except beverage containers – at QSRs, creates a health problem.

Hot and cold beverage cups are recyclable.



Why compost?



Composting History

2001 Piloted post consumer

2004 Post consumer on permit
Residential +commercial)
Testing at Cedar Grove

2006 Commercial collection
Early adopters

2007 “Greenwashing”
Biodegradable
Oxo-biodegradable
SF Banned bags,
biodegradable

2008 “Compostable”

What does it mean?
Specific environment +
system + time

2009 -2010

Residential post-consumer
Foam ban
Packaging Ordinance
“Biodegradable” cannot
be used in California



A snapshot of results:

There are 2,300 commercial organics collection accounts, up from 900 five years ago. (There are 3,176+ restaurants in the city.)

Including grocery stores, last year they sent 42,600 tons to the compost processor.

Approximately 14,000 tons came from restaurants, cafes, institutions.

(But, remember, we know there's still 40,000 tons in commercial garbage.)



In addition, SPU targets leftover food with packaging regulations.

Since 2010, food service ware and packaging must be made of materials that can be recycled or composted in Seattle.

Restaurants must provide compost and recycling bins for products discarded on premises; they must see that these materials are collected and sent for appropriate processing.



Already, every household has a Food and Yard Waste cart.

And we promote food waste composting.



City of Seattle and King County Lead the Way!

1989

City of Seattle, green waste

Projected tonnage: 12,000

Actual tonnage: **48,000**

1990

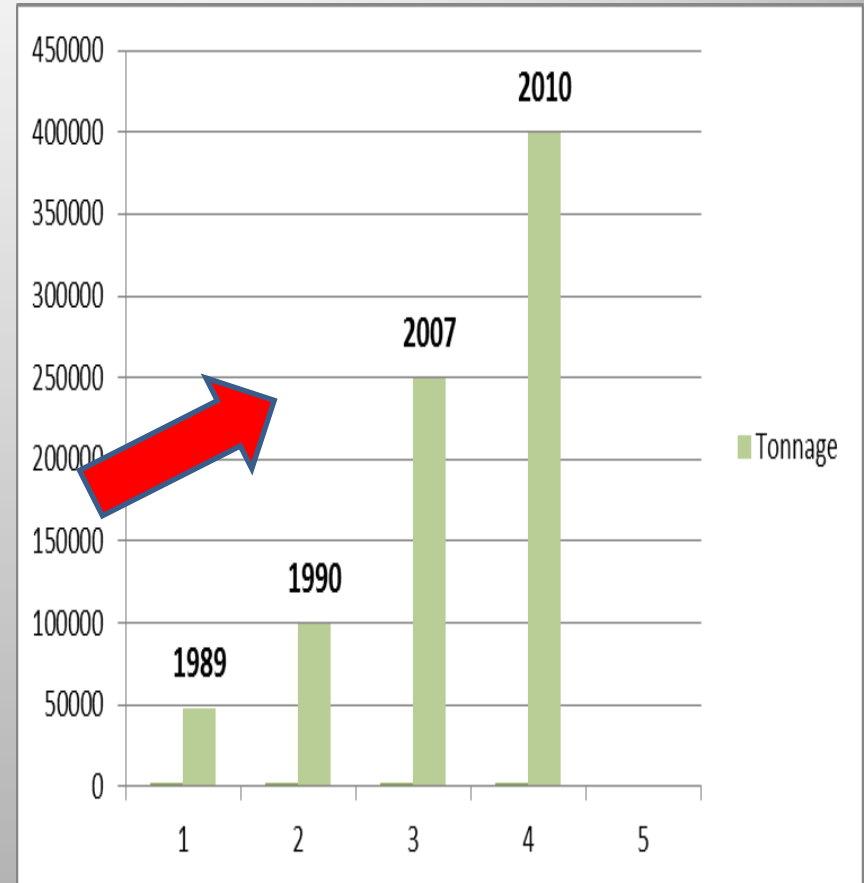
Actual tonnage: **100,000**

*Added King Co suburban
cities*

unincorporated King Co

2010

Actual tonnage: **400,000**



6 Million Tons Diverted Since 1989!

More than 100,000 railcars!



Reality on the ground

...and a few words about enforcement.

Michele Riggs
Technical Specialist, Cedar Grove



History

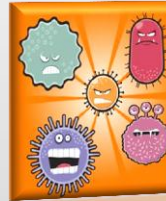
- Testing began with Compostable Bags
 - BPI Certification Required prior to Testing
- 2006 Field Test of Food Service Items
 - ASTM D6400 and D6868
- 2008 Formalized Substrate Acceptance
 - Historically Acceptable Materials
 - Paper, Clay and Wax Coated Paper, Wood



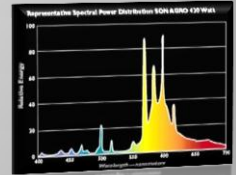
How and why products are tested

ASTM D6400 and D6868

- Biodegradability
- Metal Levels
- Toxicity
- Spectral Analysis
- Disintegration



ASTM and BPI





New Parameters

	Was	Change
Inoculate	Finished Compost	Synthetic Feedstock
C:N Ratio	13:1	30:1
Duration	84 Days	60 - 84 Days



United States Composting Council (USCC)

Compostable Plastics Task Force (CPTF)

Three Working Groups

Labeling, identification and consumer outreach/education

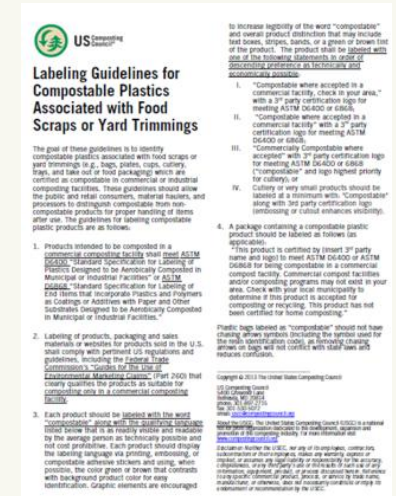
Co-facilitated by
Jack Macy from the City of San Francisco, CA and
Bridget Anderson from New York City

Legislation and Enforcement

Facilitated by
Justin Gast from Washington County, OR

Compostability Standards and Operation Impacts

Co-facilitated by
Michele Riggs from Cedar Grove Composting, Seattle WA
Hilary Near from Cascadia Consulting, San Jose, CA



compostingcouncil.org



National Standards are Developing

- Labeling
 - ASTM standard
 - 3rd party cert
 - Brown or green



Labeling Guidelines for Compostable Plastics Associated with Food Scraps or Yard Trimmings

The goal of these guidelines is to identify compostable plastics associated with food scraps or yard trimmings (e.g., bags, plates, cups, cutlery, trays, and take out or food packaging) which are certified as compostable in commercial or industrial composting facilities. These guidelines should allow the public and retail consumers, material haulers, and processors to distinguish compostable from non-compostable products for proper handling of items after use. The guidelines for labeling compostable plastic products are as follows:

1. Products intended to be composted in a commercial composting facility shall meet ASTM D6400 "Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities" or ASTM D6868 "Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities."
2. Labeling of products, packaging and sales materials or websites for products sold in the U.S. shall comply with pertinent US regulations and guidelines, including the Federal Trade Commission's "Guides for the Use of Environmental Marketing Claims" (Part 260) that clearly qualifies the products as suitable for composting only in a commercial composting facility.
3. Each product should be labeled with the word "compostable" along with the qualifying language listed below that is as readily visible and readable by the average person as technically possible and not cost prohibitive. Each product should display the labeling language via printing, embossing, or compostable adhesive stickers and using, when possible, the color green or brown that contrasts with background product color for easy identification. Graphic elements are encouraged

to increase legibility of the word "compostable" and overall product distinction that may include text boxes, stripes, bands, or a green or brown tint of the product. The product shall be labeled with one of the following statements in order of descending preference as technically and economically possible:

- I. "Compostable where accepted in a commercial facility, check in your area," with a 3rd party certification logo for meeting ASTM D6400 or 6868;
 - II. "Compostable where accepted in a commercial facility" with a 3rd party certification logo for meeting ASTM D6400 or 6868;
 - III. "Commercially Compostable where accepted" with 3rd party certification logo for meeting ASTM D6400 or 6868 ("compostable" and logo highest priority for cutlery); or
 - IV. Cutlery or very small products should be labeled at a minimum with: "Compostable" along with 3rd party certification logo (embossing or cutout enhances visibility).
4. A package containing a compostable plastic product should be labeled as follows (as applicable):
"This product is certified by [Insert 3rd party name and logo] to meet ASTM D6400 or ASTM D6868 for being compostable in a commercial compost facility. Commercial compost facilities and/or composting programs may not exist in your area. Check with your local municipality to determine if this product is accepted for composting or recycling. This product has not been certified for home composting."

Plastic bags labeled as "compostable" should not have chasing arrows symbols (including the symbol used for the resin identification code), as removing chasing arrows on bags will not conflict with state laws and reduces confusion.

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About the USCC: The United States Composting Council (USCC) is a national not-for-profit organization dedicated to the development, expansion and promotion of the composting industry. For more information visit www.compostingcouncil.org.

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Parameter Research

➤ Temperature

➤ Regime vs. Constant

2nd Research Round

Meeting – November 2013

Precision and Bias

Inter-Laboratory Study - Repeatability



But there are still problems. (No surprise, really.)

1. The wrong stuff. Confusing stuff.

- ☐ Greenwashing – earth-toned poly-coated papers.
- ☐ Products in use without Cedar Grove approval. This is Seattle's standard. Where are the distributors on this?
- ☐ Look a-likes. How do you tell PET and PLA clear cold cups apart?

2. Recyclable food service products used where compostable is really necessary = CONTAMINATION.



And one really big problem.

1. Customers don't know what's on their tray.
2. They don't know if it's compostable or recyclable.
3. They often don't know where to put it even when they spend time with the bin signs.



Most packaging creates trash that goes to a landfill.



However...Composters are NOT disposal sites!



Understanding Feed Stock Growth and Costs...

ADMIN

Load management
Acct feedback
Education



OPERATIONAL

Picking
Double Handling
Screening (2-3 times)

SALES

Lost sales, product
Product replacement
Customer resolution

Then

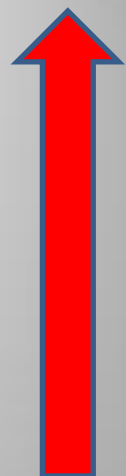


REPLACE

ADMIN

PICK

SCREEN



COST MODEL IS SHIFTING DRAMATICALLY!

SCREEN

COMPOST

GRIND

PREP



SCREEN

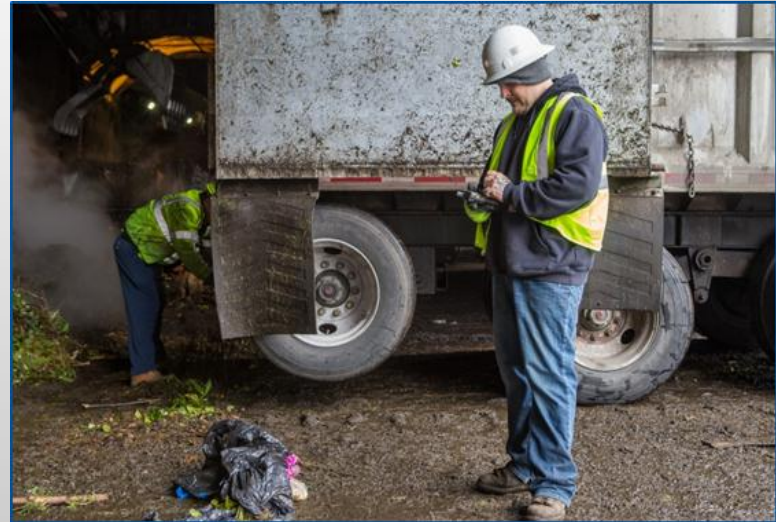
COMPOST

GRIND

PREP

As a consequence...

- Permit changes, 5% inbound
- State rules more stringent for contaminants inbound and in finished product
 - .2% film plastics
 - 1% “physical contaminants”
- Acceptance procedures
 - Reject
 - Handling fees
 - We dispose at cost



Green Fence

Block on exports to China for recyclables

Ban on 3, 6 & 7 plastics

Why did it happen?

- Poorly sorted, dirty streams
- Food impacted plastics

What is part of the answer?

- More compostables
- Keep food out of recycling
- Local programs vs. overseas
- Controlled environment

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China's new 'Green Fence' puts pressure on US recyclables

Updated: 2013-09-13 11:44
By Caroline Berg in New York (China Daily)

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Recyclable waste is a very important export for the US, and China is a big buyer. Due to a recent initiative, however, the US may be forced to find a better recycling system on the home front.

In February 2013, China launched its Operation Green Fence to keep trash out of China. The initiative targets poorly sorted or dirty shipments of recyclable waste from foreign exporters. It involves random inspection of all forms of imported waste, such as metal, plastic, textiles, rubber and recovered paper materials.

"We're hoping that it helps to improve the quality of recyclables that are being collected, and then it benefits the entire global recycling industry," Valerie Androutsopoulos, principal at Baltimore-based recycling consultancy Vangel Inc, said in terms of the initiative's influence on US recycling practices.

"It will then reduce the amount of junk that is getting sent to China that should not have been getting sent and it will level the playing field for everybody," Androutsopoulos told China Daily.

The US is unprepared for this export block on a longtime dependence on exporting recyclable



Initial Ideas For Improving the System

Idea	Consumer	Operator	Composter
Seattle Approved Mark			
Color			
DO NOT COMPOST on recyclables			
“Compostables Only” Dine In/Take Out Ordinance			



Let's hear from you

What works to distinguish packaging?

- Consumer?
- Operation?
- Hauler?
- Tip Floor?

What is working?

- Customers only buying what's approved to come in
- Programs that only allow compostables (not mixed)
- Color marked packaging (commercial)
- Input from stakeholders



What are the challenges?

Operators/retailers?

Distributors

Manufacturers



Summary of Discussion



Closing Comments



Thank you.

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and Product Stewardship

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