

Emerging Trends in Foodservice Waste Management



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My Perspective



- Consultant/Educator on foodservice waste management
- Co-founder & President of LeanPath, technology company providing food waste tracking systems

Emerging Trends



What Qualifies?

- Industry innovations (new products)
- Investments in new companies
- Operator experimentation
- Regulatory changes
- Observations & predictions



Responding to Consumer Expectations



Sustainability goals have led operators to learn a great deal about the food production system...

**It's becoming
necessary for
operators to go
through a similar
learning curve on
waste management...**



**Waste is no longer a facilities concern.
The stakes are high.
Operators must develop the expertise to make the best choices.**



Consumer Expectations



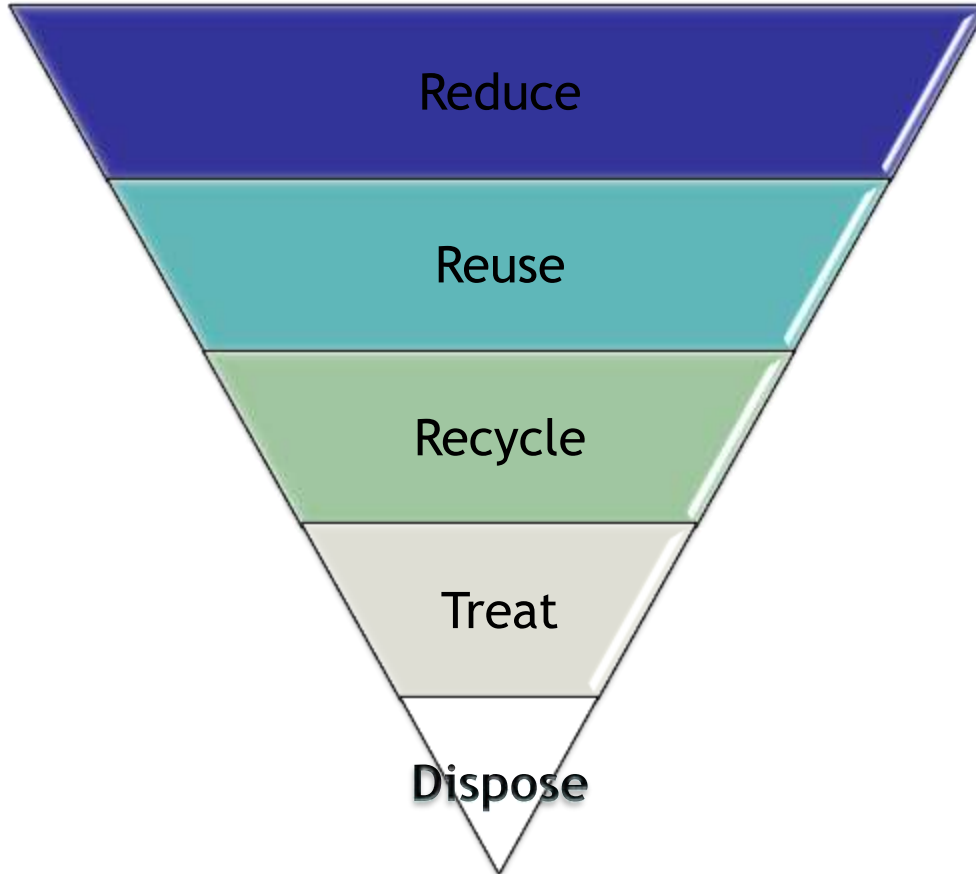
- Customers want to know: where is this waste going?
- Are you stewarding this waste correctly?





**How to deal with this
consumer pressure? Search
for organizing frameworks**

Prioritization/Frameworks



Reduce waste or the need to recycle by not creating it in the first place

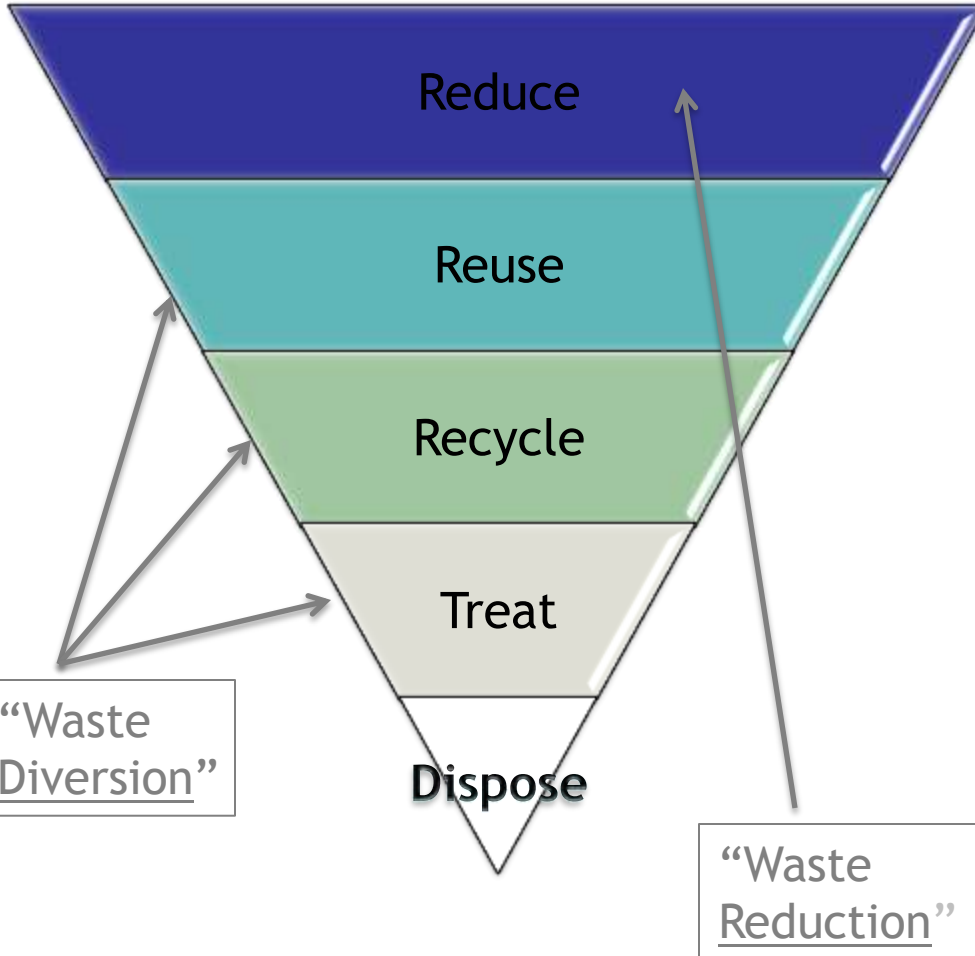
Reuse materials before recycling or discarding

Transform material into another usable material

Reduce volume or toxicity

Store or bury waste

Reduction v. Diversion



Reduce waste or the need to recycle by not creating it in the first place

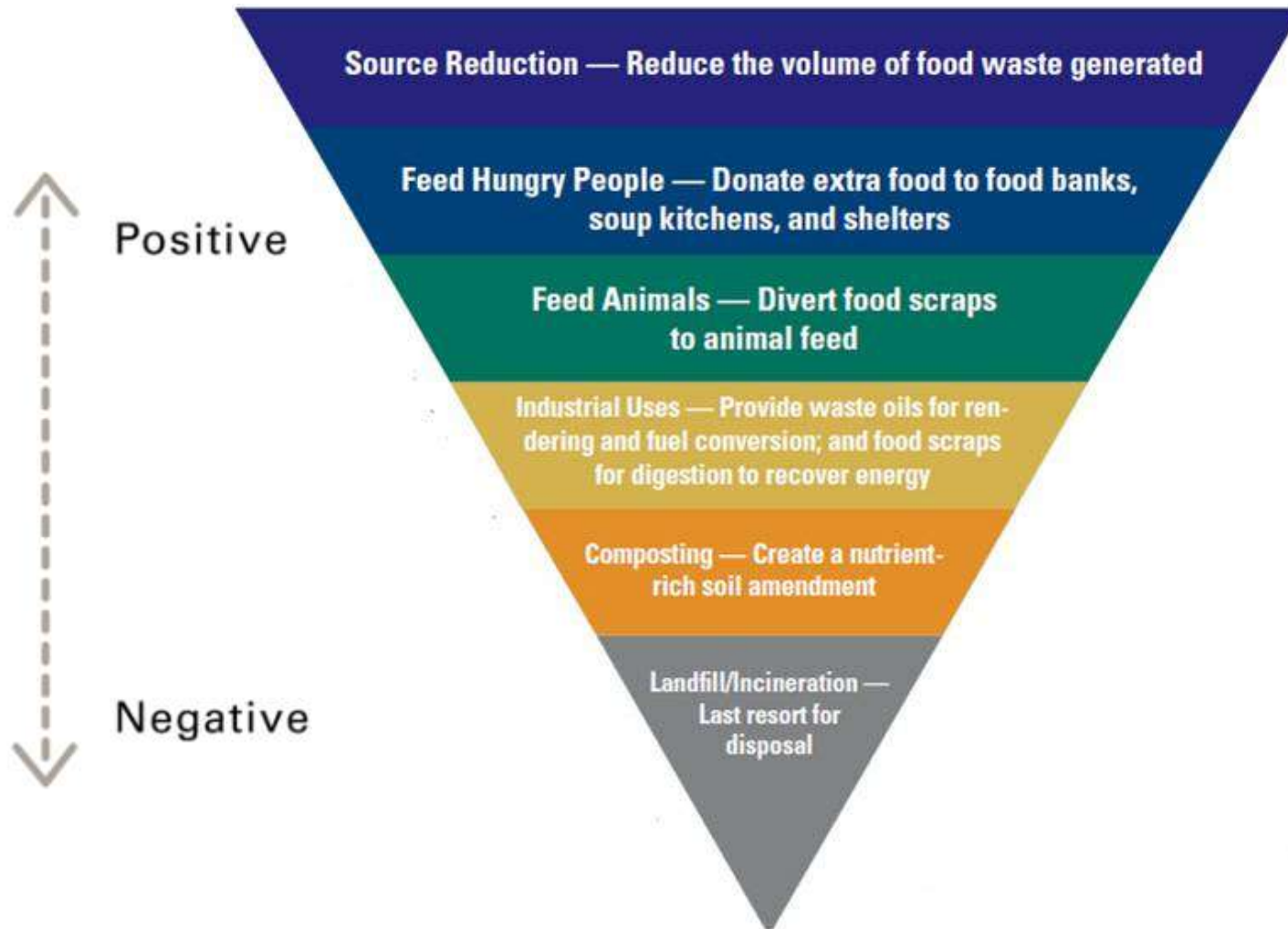
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EPA Food Waste Recovery Hierarchy



Recognition/Certification Models



Embedded Tools



- Every recognition and certification program includes embedded best practices
- Start with best practices, obtain recognition and then consider certification options.



**This leads to greater focus on
waste prevention**

Prevention/Minimization



Source Reduction:

- Often overlooked
- Intangible
- Operators not sure if there is an effective way to attack it – what tools are available in the toolkit?
- Diversion attracts attention

Expect...



- More government attention in this area
 - National
 - Local
- Financial awakening
 - Prevention/minimization improves margins



Leading to greater focus on data and waste tracking

Food Waste Tracking



- Auditing v. Continuous tracking
 - Pre-Consumer Food Waste – Daily
 - Post-Consumer Food Waste - Periodically
- Data enables comparisons over time, showing progress
- Data drives diagnostics and improvement efforts
- Data engages employees

Automated Tracking





**With data and progress, beliefs
begin to change...**

Historical Beliefs



Waste is a sign of negligence

- Waste is a bad thing and an uncomfortable topic to discuss
- Waste is an indicator of poor management
- Waste is an indicator of poor staff performance

Our operation doesn't have very much waste

- The things we do waste are unavoidable
- We recycle and/or compost so we're all set
- We have IT systems that cover it.

Emerging Reality #1



- Waste is Rarely Due to Negligence
 - We have complex operations and a large, changing work force with a range of skill levels.
 - The cost of waste has been externalized throughout our society for a long time.
 - Small inefficiencies, which might be overlooked, add up to large issues at our volume levels.
 - We don't want to run out of food -- so we've always made a little extra.
 - We've come to expect, accept and tolerate waste.

Emerging Reality #2



- Every operation has waste
 - The best operations openly acknowledge this
 - It's always possible to improve
 - Recycling and composting are only partial solutions
 - IT systems are critical but the whole team needs to be engaged

Emerging Views



- **Waste is a challenge faced by every operation.**
- **It must be managed every day, just like safety and quality**
- **Everyone has an opportunity to improve**
- **Waste is a resource in disguise**



**People begin to get excited
about the opportunity and set
big goals**

Toward Zero Landfill Waste



Source
Reduction



Zero
Waste
Target

Diversion



Compost, HSAD Energy, WWTP Digesters



Business demand leads to infrastructure development

Growth in Commercial Food Waste Composters



More Food to WWTP Digesters



Solid Food Waste to Energy



- High Solid Anaerobic Digesters
- Energy first, compost second





**Where there is no
infrastructure...**

More On-Site Processing Systems



Sources: Waste to Water Environmental & Orca Green

Handling Hierarchy






**All this activity leads to greater
focus on overall ROI**

Reporting on Green ROI



EPA Food Waste Calculator CSR Scorecards



The screenshot shows the EPA website's "Wastes - Resource Conservation - Common Wastes & Materials" section. The page features a navigation menu on the left with links to "Wastes Home", "Resource Conservation Home", "Common Wastes and Materials Home", "Organic Materials Home", "Yard Trimmings", "Food Waste", "Wood Waste", "Where You Live", "Reducing & Recycling", "Voluntary Initiatives", "Resources", and "Resource Conservation Challenge". The main content area is titled "Food Waste Management Cost Calculator" and includes a search bar, a breadcrumb trail, and a list of bullet points describing the calculator's features. A note at the bottom explains how to use the calculator.

Wastes - Resource Conservation - Common Wastes & Materials -

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You are here: [EPA Home](#) » [Wastes](#) » [Resource Conservation](#) » [Common Wastes and Materials](#) » [Organic Materials](#) » [Food Waste](#) » [Food Waste Management Cost Calculator](#)

[Organics](#) | [Yard Trimmings](#) | [Food Waste](#) | [Wood Waste](#)

Food Waste Management Cost Calculator

The Excel [Food Waste Management Calculator](#) | The [Food Waste Management Calculator \(PDF\)](#) (13 pp, 97K; [about PDF](#))
alternatives to food waste disposal, including source reduction, donation, composting, and recycling of yellow greas

- Develops an alternative food waste management scenario based on:
 - Your waste profile;
 - Availability of diversion methods; and
 - Preferences, and
- Compares cost estimates for a disposal versus an alternative scenario.

The Calculator demonstrates that environmentally and socially responsible food waste management is cost-effective. The more you know about your current waste management costs, the more accurate the calculator's estimate will be, based on the variables you input.

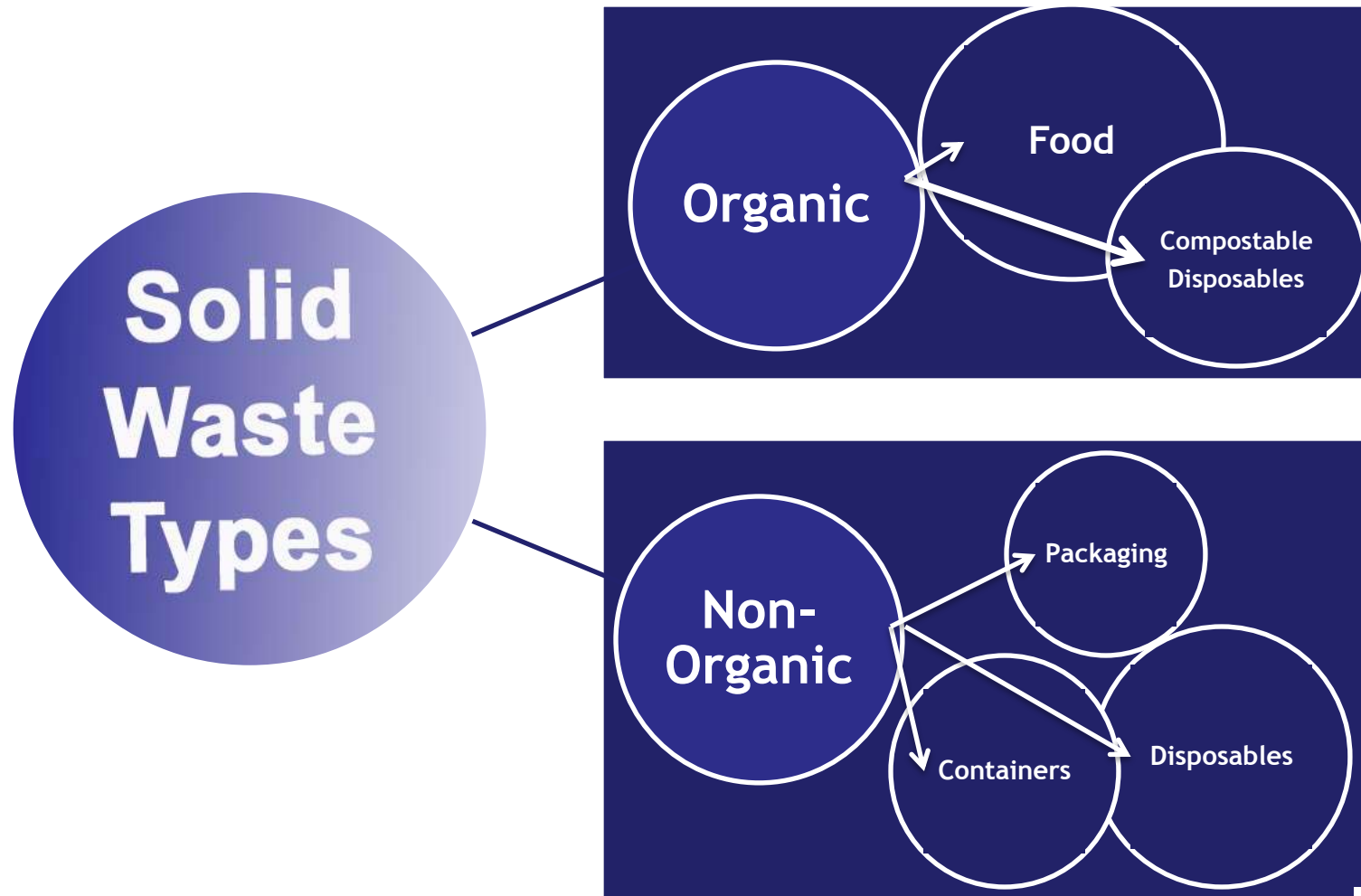
Note: You will need to open an Excel file to use the calculator. You will need to enable macros for the calculator to run. If macros are not enabled, please go to Tools>Macro>Security and set the security level to Medium. Then close the file. When you open the file, it will prompt you to enable macros. Click enable.

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**And we won't forget that
organic waste now includes
more than food...**

Waste Definitions



Reusables v. Disposables



<i>Most Preferred</i>	Reusable Food Service Ware
<i>More Preferred</i>	Biobased Products—Beyond Baseline Sustainability Criteria
<i>Preferred</i>	Biobased Products—Baseline Sustainability Criteria
<i>Less Preferred</i>	Biobased Products—Do not meet Baseline Sustainability Criteria
<i>Least Preferred</i>	Fossil Fuel-based Disposable Products

Source: *Healthcare Without Harm*



In Summary...

Proactive Management of...



The New Normal

Pre-Consumer Food Waste

Post-Consumer Food Waste

Packaging/Disposables



Food Waste Focus

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Notes

leanpath.com/notes



Q&A

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