

# Food Waste Composting: Successfully Turning a “Waste” Problem into a Resource Opportunity



# *Where does the “Waste” go in the OCRRA System?*

Waste-to-Energy

Recycling

Composting



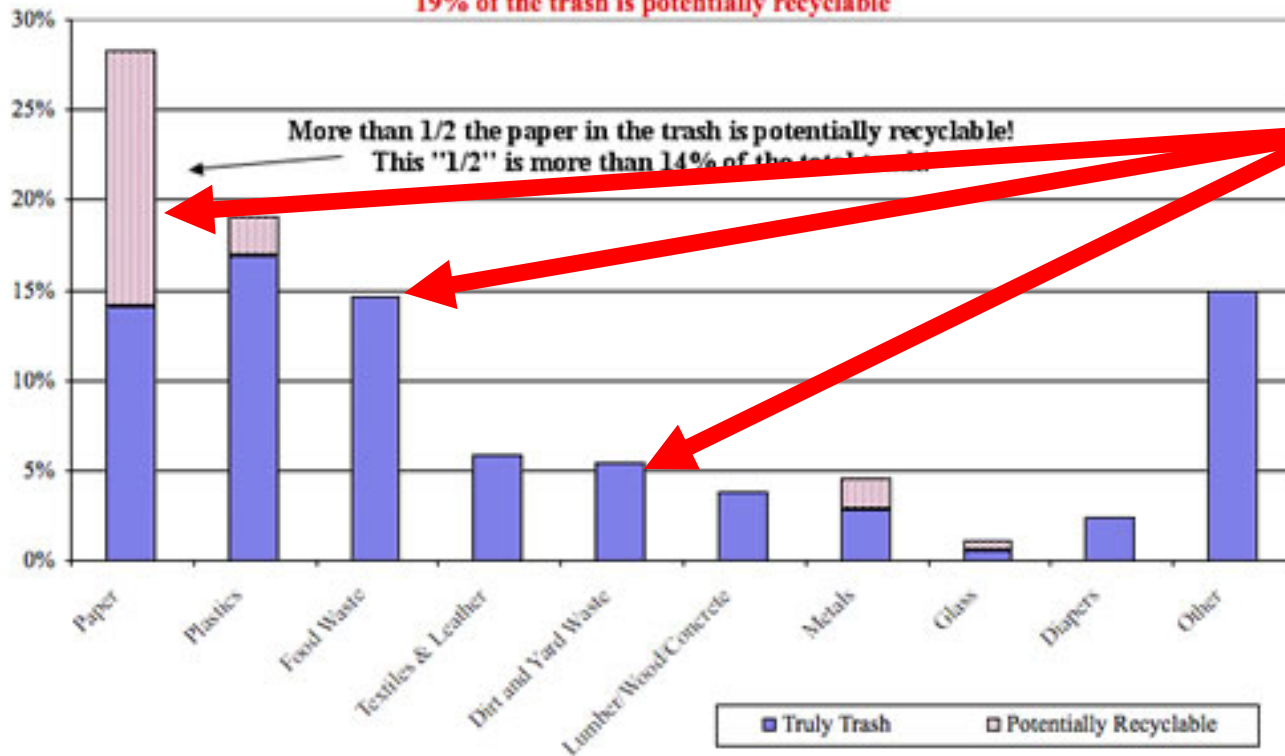
# What is in Onondaga County's Trash

(data from the 2005 comprehensive waste analysis)

## What's Really in the Trash (% by Weight)

81% of the trash is "truly" trash, but

19% of the trash is potentially recyclable



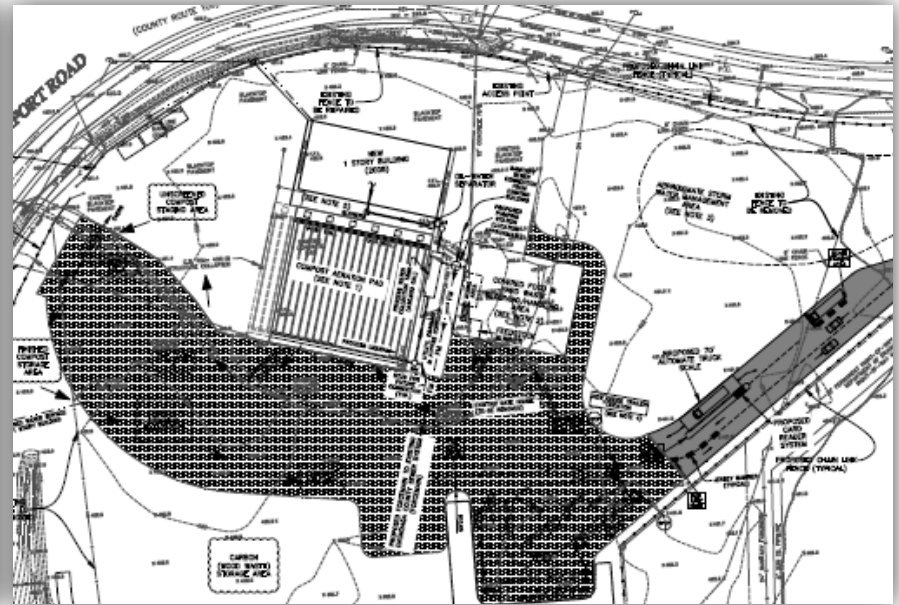
>30% could be virtually eliminated if everyone in the county composted

# What is “FOOD WASTE”



# OCRRA's Food Waste Composting: Current Status

With an estimated 18-24,000 tons of commercial and institutional food waste generated in OCRRA's service area, and an untapped market for organics recovery, OCRRA is expanding food waste composting operations.



# Early Program Adopters Include:



**destiny usa**





Composting over  
400 tons per year





# destiny usa

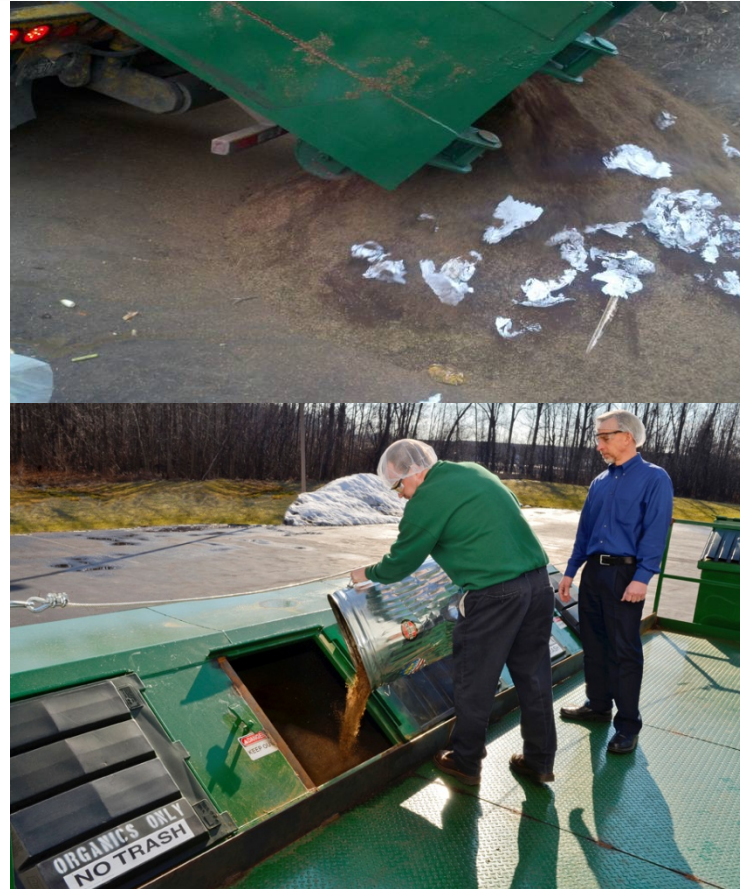
22- Establishments  
Composting  
Over 1,500 lbs per day  
Over 200 tons in 9 months







3 to 7 tons per month



# OCRRA's Food Waste Composting



Began in 2008 as a pilot project to compost food waste from large commercial and institutional generators.

# OCRRA's Food Waste Composting

## *Transforming Food Waste into a Value Added Product:*



Materials are first blended in a 3:1 ratio of yard waste to food waste

and then . . .

placed in “static piles” over a series of above-grade pipes that extend 80 feet along the bottom of the compost pile .



# OCRRA's Food Waste Composting



- Air is injected into the piles via the piping network, accelerating the decomposition process and eliminating the need to routinely turn the pile.



- The Aerated Static Pile system is effective year round!

# OCRRA's Food Waste Composting “Challenging Wastes with Challenging Conditions”



- Effectively composting 13,000 lbs of “Sharks” at 17° below 0 and 144” of snow!

# OCRRA's Composting Program



## OCRRA Products:

- 2" Double Ground Mulch
- 1/2" Screened Compost Amboy Blend & Jamesville Blend




# OCRRA's Compost Products

OCRRA's Best  
Organic Compost

Jamesville Blend  
Amboy Blend



As Members of the US Composting Council and Part of the Seal of Testing Assurance Program, OCRRA tests its Compost annually and often quarterly depending on volume and generation rates. Test Results are always available online at [www.OCRRA.org](http://www.OCRRA.org).



**US COMPOSTING COUNCIL**  
*Seal of Testing Assurance*

OCRRA  
100 Elwood Davis Road  
North Syracuse NY 13212  
Tel: 315-453-2866 X 203  
Fax: 315-453-2872  
Product Name: Amboy  
Lab ID: C04770

Report Date: 1/24/2011

### Compost Technical Data Sheet

Compost Parameters	Reported as (units of measure)	Test Results	Test Results
Plant Nutrients:	% weight basis	% wet weight basis	% dry weight basis
Nitrogen	Total N	0.51	0.97
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0.29	0.56
Potassium	K <sub>2</sub> O	0.44	0.83
Calcium	Ca	5.22	9.90
Magnesium	Mg	0.84	1.60
Moisture Content	% wet weight basis	47.31	
Organic Matter Content	% dry weight basis	34.20	
pH	unitless	7.99	
Soluble Salts <i>(electrical conductivity)</i>	dS/m (mmhos/cm)	2.65	
Particle Size	< 9.5 mm	96.16	
Stability Indicator <i>(respirometry)</i> CO <sub>2</sub> Evolution	mg CO <sub>2</sub> -C/G TS/day, AND mg CO <sub>2</sub> -C/G OM/day	0.88	2.10
Maturity Indicator <i>(bioassay)</i> Percent Emergence, AND Percent Seedling Vigor	average % of control, AND average % of control	100.00	100.00
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.20(a)	PASS: Fecal Coliforms < 1,000 MPN/g of dry solids	
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 2	PASS: As, Cd, Cu, Pb, Hg, Mo, Ni, Se, and Zn are less than limits specified by US EPA Class A Standard 40 CFR § 503.13, Tables 1 and 2	

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost and use instructions, as a means to better serve the needs of their compost customers.

## Recent Awards for OCRRA's Food Waste Compost Program!



- *Composting Program of the Year - 2010*  
- U.S. Composting Council
- *Environmental Excellence Award - 2011*  
- Solid Waste Association of North America (SWANA)
- *Environmental Excellence Award – 2011*  
- New York State DEC

OCRRA operates the only compost facilities in Central NY that have the US Composting Council's Seal of Testing Assurance and do not contain any bio-solids or sludges.





# Got Food Waste?

## OCRRA and your hauler can help you recycle it!



- *Composting food waste with OCRRA can reduce your waste disposal costs, while also doing a good thing for the environment. **Your customers will love that!***
- *Food waste may account for up to 80% of the total weight of your trash!*
- *Recycling food waste with OCRRA costs \$35/ton, putting that same material in the trash costs \$79/ton. **That's a \$44/ton savings!***
- *In 2012, Syracuse University diverted over 400 tons of food waste, **saving over \$15,000 in disposal fees!***
- *The environmental leadership that you demonstrate by composting food waste is a model for others to emulate.*
- *OCRRA turns your food waste into nutrient-rich compost, which helps our community.*
- *OCRRA's trained staff is eager to help your business start composting food waste.*
- *Contact us for a **FREE** consultation*

# *What does all of this mean?*

■ To go from this....



■ To this....



■ You need to...



And possibly save this....



# *The Community Benefits When Food Waste Generators Join OCRRA's Composting Program*

**OCRRA's Best  
Organic Compost**

**Jamesville Blend  
Amboy Blend**



**US Composting  
Council**  
*Seal of Testing  
Assurance*

**The Ideal Soil Amendment for All Your Landscaping Needs:**

Plantings    Mulching    Lawn and Turf    Erosion Control

# OCRRA's Food Waste Composting

## Community Benefits:



- Decrease disposal fees for commercial / institutional food waste generators
- Create local jobs
- Recycle nutrients back into native soils through rich compost
- Increase the community's recycling rate
- Reduce greenhouse gas emissions

# *Join OCRRA's Composting Program: Things To Do?*

- **Contact OCRRA** at 453-2866 or visit [www.ocrra.org](http://www.ocrra.org).
- **Conduct a Waste Audit** – Know what you throw away  
(Free resources available from OCRRA, CWMI, USCC & EPA)
- **Contact Your Waste Hauler**
- **Modify Your Service Contract to include Composting**



# OCRRA's FREE Tools and Resources

## FOOD SCRAP RECYCLING

<b>YES</b>	<b>SI</b>
<p><b>ALL FOOD</b></p> <p>Fruits Vegetables Dairy Breads &amp; Grains Meats Seafood</p>	<p><b>TODA COMIDA</b></p> <p>Frutas Verduras Productos lácteos Panes &amp; cereales Carne Mariscos</p>
<p><b>FOOD-SOILED PAPER</b></p>	<p><b>PAPEL SUCIO DE COMIDA</b></p>
<p><b>WAXED CARDBOARD</b></p>	<p><b>CARTÓN ENCERADO</b></p>
<p><b>PLANTS</b></p>	<p><b>PODA DEL JARDÍN Y MADERA LIMPIA</b></p>

**NO**

NO PLASTIC, STYROFOAM, GLASS, METAL OR LIQUIDS

NO PLÁSTICO, ESTIROFOAM, VIDRIO, METAL O LÍQUIDOS

## FOOD SCRAPS

**YES**

- All food scraps
- Coffee filters & tea bags
- Paper cups, plates & towels
- Plants & flowers

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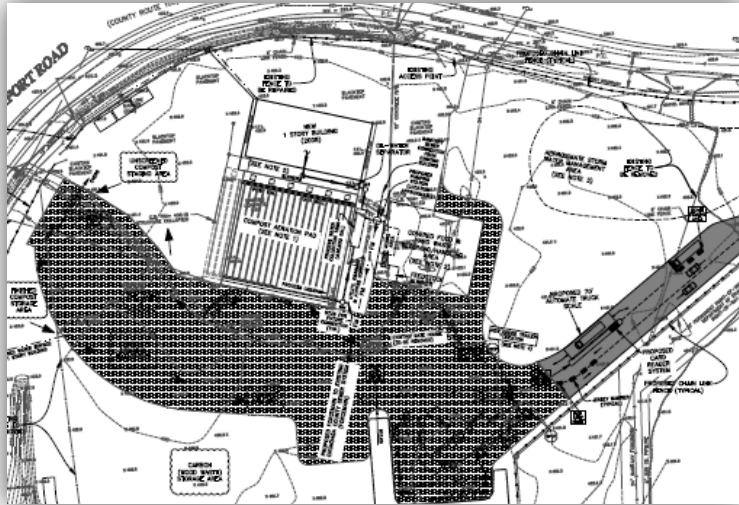
**NO**

- Glass
- Metal
- Liquids
- Plastic
- Styrofoam

## FOOD SCRAP Composter

Proudly supporting a green community

# OCRRA's Food Waste Composting: What's Next for OCRRA?



OCRRA is expanding food waste composting operations to handle over 9,600 tons at the Amboy Compost Site.

# *OCRRRA's Food Waste Composting: What's Next for OCRRRA?*



## **Necessary site improvements include:**

- grading and paving
- scale installation
- stormwater management
- utility upgrades (electricity & water)
- fabric receiving building
- construction of concrete aeration pads.





# OCRRRA's Food Waste Composting: What's Next?

## **Processing Equipment :**

- Trommel screen
- Vertical mixer
- Excavator
- Large capacity front end loaders
- Slow speed shredder
- Horizontal grinder



# What is Happening in NY State



- Food Wastes and SSO are major components of the DEC's "BEYOND WASTE" Plan.
- NYS DEC and State Organizations are looking at neighboring State models and proposed legislation; Conn., Mass., VT.

## Current Facilities

- 5 - Permitted Food Waste/SSO Facilities in NY
  - *Approx. 60,000 cy or 30,000 tons of capacity*
- More than 32 "Registered" Food Waste/SSO Facilities in NY
  - *Approx. 20-25,000 cy or 10,000 tons of capacity*

# *What is Happening in NY State*

## *(Continued)*



- More communities are turning to food waste composting to achieve their recycling and sustainability goals.
- *“Pilot” and Community Projects*
  - *Ulster County*
  - *Schenectady County*
  - *City of Troy and Troy Citizen’s Working Group*
  - *GrowNYC and Green Markets*
  - *NYC Dept. of Sanitation (Freshkills Project)*
  - *NYC Dept. of Corrections (Riker’s Island)*
  - *Tompkins County and the City of Ithaca*

# What is Happening in NYC



- *Global Green Coalition and CoRR efforts to capture over 1,000 tons of pre-consumer food waste each day! (Diane Greer's article in the Dec. 2012 issue of BioCycle)*
- *Waste hauler and transfer station separation of organics*
  - *Royal Waste and Action Carting.*
- *5 – Main facilities currently capable handling NYC Food Waste/SSO*
- *On-Site Composting Success*
  - *St. John's University: Student and Staff composting model and efforts using small vessel (Rocket) and small aerated bins (O2Compost)*

# What is Happening in NJ



- New Jersey is tackling the same capacity and facility issues as NYC
- NJ DEP is working with waste haulers and transfer stations for the separation of organics
  - Most Food Waste/SSO is going to Peninsula Composting in Wilmington, DE .
- 2 other facilities currently capable handling Food Waste/SSO
  - Ag Choice and Gloucester City Organics
- On-Site Composting Success
  - Montclair and Kean Universities: Student and Staff composting model and efforts using in-vessel drum systems

# What is New in PA



- Pennsylvania DEP, PA Recycling Markets Center, USCC, Local Composter and Large Retailer work together to launch Region's largest Program (January 2013 BioCycle)
- DEP has amended "mining permits" to allow composting in quarries.
- American Bio soils & Composting LLC is formed
  - Joint venture of Two Particular Acres Composting and H&K Group, composter and quarry/excavation firm.
  - 5 facilities to be permitted 30-35,000 tpy per
  - 2 within NYC/NJ service range
- Weis Markets to roll-out program to over 50 stores in the market area



# *Thank You!*

## Questions???

### *For More Info....*

[www.ocrra.org/about-ocrra/services/food-waste-composting](http://www.ocrra.org/about-ocrra/services/food-waste-composting)

[www.cwmi.css.cornell.edu/composting](http://www.cwmi.css.cornell.edu/composting)

[www.epa.gov/foodrecoverychallenge](http://www.epa.gov/foodrecoverychallenge)

[www.compostingcouncil.org/aboutus](http://www.compostingcouncil.org/aboutus)

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