

# Food Scraps to Compost: Commercial Efforts to Combat Global Warming

GreenTown – The Future of Community

DeVos Center  
Grand Rapids, Michigan

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# Stakeholders

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## Who Are They ?

- Governmental agencies
- NGO's (Non-governmental organizations)
- Communities where stakeholder businesses operate
- Industry organizations
- Food waste generator community
- Receiving facilities
- Collection and transportation entities
- Other vendors of services (supplies, business/professional services)
- Consumers (the public)
- The media
- Advertisers and marketers

# Stakeholders

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## Why Are We Here ?

- Promote environmental stewardship
- Support (and benefit from) governmental initiatives
- Create new markets
- Grow existing business
- Respond to customer demands
- Attract, train, motivate, and retain the best employees
- Improve the bottom line

# What is Sustainability ?



## Sustainability Is:

- “Business strategies and practices that promote the long-term well being of the environment, society, and the bottom line”
  - \_ Food Marketing Institute, Sustainability Task Force – 2007
  
- “Meeting the needs of the present without compromising the ability of future generations to meet their own needs.”
  - \_ “Brundtland definition” of the 1987 Report of the World Commission on Environment and Development - [www.epa.gov/sustainability/basicinfo.htm](http://www.epa.gov/sustainability/basicinfo.htm)

# Commercial Organics Diversion

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## A Sustainable Business Partnership:

- Generators
  - \_ Supermarkets, resorts/hotels, convention centers, restaurants, colleges, food processors, corporate cafeterias, etc.
- Vendors of Services
  - \_ Receiving facilities, collection/transportation companies, other suppliers
- Governmental entities
  - \_ US EPA, State EPA, State DEP, regional/county solid waste districts
- Industry organizations
  - \_ Grocers associations, restaurant associations, hotelier associations; WasteWise, other organizations (States, BioCycle, USCC, BPI)
- Communities where businesses operate
  - \_ Chambers of commerce, economic development, city/town leaders

# Business Model Synergy

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- Commercial Organics Diversion/Recycling and Waste Stream Management:
  - Should:
    - Increase revenues
    - Decrease costs
    - Improve market share
    - Meet stakeholder goals
  - Satisfies operational requirements of all participants
  - Makes environmental sense
  - Is synchronous with government, industry, and community initiatives
- Program evaluation is primarily based on bottom-line results
  - Typically trumps all other considerations

# *Business Model Synergy*

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## Business Model Synergy – Overview

- Receiving Facilities
  - \_ Disposal revenues rise
  - \_ Compost or outbound product (fuel, fertilizer, energy) revenues increase
- Generators
  - \_ Lower disposal cost per ton for organic waste
  - \_ Increased opportunities to maximize recycling
- Organics-niche Hauling Companies
  - \_ Increased revenues through increased hauls and/or improved route density

# Program Economics

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## Economics Strategy:

- Extract the financial productivity out of the landfill
- Lower cost to generators – net landed cost per ton
  - \_ Tipping fee differential
  - \_ Hauling frequency management
  - \_ Improved opportunities to maximize recycling – OCC, film plastics, etc.
- Increased revenue to receiving facilities
  - \_ Disposal fee and product sales – compost, soils, electricity, fuel
- Increased revenues to organics-niche transportation companies
  - \_ Increased hauls
  - \_ Improved route density

# Business Model - Not Just Food Waste



## All Recyclables

- Organics – largest component of the waste stream (tonnage)
  - \_ Produce, other departments, paper, wet & waxed cardboard, rendering
    - Anything that is not glass, metal, or plastic
- OCC
  - \_ Maximize compacting/baling as result of organics focus
- Waxed cardboard
  - \_ Composting, fire logs
  - \_ Collection can be problematic
    - Loose, baled, back-haul, etc.
- Plastics
  - \_ Primarily film
  - \_ Generate revenues vs. disposal fees
- Other recyclables
  - \_ Metal, glass

# WHY ??

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## Why Would Stakeholders Do This?

- US EPA – goal to double organics diversion
  - \_ From 3% now to 6% tomorrow - potential upside is significant
- “Green” or “Sustainability” movement – consumers, society, businesses, government
  - \_ Focus on the environment and the future – sustainability
  - \_ Companies responding to customer demands
  - \_ Governmental initiatives – States and State agencies
- Business development and learning opportunities
  - \_ Cost-reduction initiatives – supplies, services purchased, energy
  - \_ Source-separation to recycling – immediate opportunities
  - \_ Long-term waste-to-energy solutions – AD; biofuels from food scraps

# Commercial Organics Strategy



## Composting Facilities

- Integrate new/anticipated composting capacity into State strategies
- Business opportunity development and strategy
  - \_ Generator sourcing
    - If it can serve the supermarket sector, it can handle all retail-like generators
  - \_ Customer service offerings – generator analysis, training, follow-up
    - Sometimes via grant funding
  - \_ Collection/transportation solutions
    - Self-haul, hauling partner, third party hauler
  - \_ Special events
    - State fairs, conventions, college graduations, etc.

# Commercial Organics Strategy

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## Generators

- Entice potential generators
  - \_ Supermarkets, resorts/hotels, convention centers, hospitals
  - \_ Restaurants, colleges, food processors, corporate cafeterias
  - \_ Others
  
- Qualify generators
  - \_ Current waste management practices
  - \_ Operational procedures
  - \_ Economic analysis
    - Lower costs for disposal
    - Optimal costs for collection and transportation
    - Increase revenues for other commodities
      - \_ OCC, film plastics, other recyclables (glass, metal, paper)

# Commercial Organics Strategy



## Collection and Transportation (Hauling)

- Hauling solutions:
  - \_ Organic-niche hauling companies
  - \_ Composting facility as the hauling company
  - \_ Compactors; dumpsters; toters
  - \_ Trans-docking or transfer station concept
  
- Hauling Economics
  - \_ Geography proximate to composting facility – 25 mile radius
  - \_ Regions further out – greater than 25 miles radius
  - \_ Cost optimization
    - Route density
    - Trans-docking (transfer station)
  - \_ Existing and future generator/hauler relationships

# Challenges Today



## Receiving Facilities, Transportation, Generators

- Composting/receiving capacity today – how much and where
  - \_ Facilities capable of working with varied generator base
- Understand organizational dynamics; define operational/economic models
  - \_ Generators, composters, vendors, communities, regulatory & support agencies
- Transportation infrastructure for organics
  - \_ Cost-effective organic-niche transportation solutions
- Limited generator knowledge
  - \_ How to I do this ? Where do I send It ? What will it cost ?
  - \_ Fear of the unknown – cost, odors, storage space, vendor relationships, customer awareness

# Strategic Initiatives



## Concurrent Efforts

- Solidify and grow the receiving and transportation infrastructure
- Leverage synergistic business partnerships
  - \_ Generators – communication, education, analysis
  - \_ Receiving facilities – food waste permitted facilities
  - \_ Transportation – organics-niche hauling companies
  - \_ Supplies vendors – product quality and cost
- Leverage complementary efforts
  - \_ Government goals & initiatives – grant funding
  - \_ Industry sustainability efforts – public, private, grass-roots
  - \_ Marketing and public/community relations
  - \_ Communication – WasteWise, BioCycle, USCC, ILSR, COGS, Alice Ferguson Foundation, trade associations

# Organics Recycling – the Future



## Strategic Process Capable of Growing at a Reasonable Pace

- Expanding list of generators
- Known and planned receiving and hauling capacities/solutions
  - \_ Integrate existing and new receiving capacity into the regional strategy
  - \_ Cost-effective organic-niche transportation solutions
- Financially responsible cost structure
  - \_ Positive economics for all business partners and stakeholders
- Public relations initiatives
  - \_ Active promotion of program progress and success
    - Business partners – generators, receiving facilities, haulers
    - US EPA, WasteWise, industry associations, (BioCycle, USCC, BPI), trade publications