

**Minutes of the Waste Prevention Steering Committee
Organics Subcommittee
August 29, 2007**

Attendees:

Chair: Donna Barlow-Casey, CVSWMD

Members: Bryan Mitofsky, Coffee Corner Restaurant; Will Cogan NECI; Tom Abbiati, VT Food Bank; Tracey Tsugawa, VOCAL; Theresa Murray-Clasen, Montpelier School District; Andrea Asch, Ben & Jerry's; Jeff Edelstein, Edelstein; Megan Hellsted, Hannafords Supermarket

DEC Staff Support: Vicky Viens; Carolyn Grodinsky; Doug Kievit-Kylar; Cathy Stacy

Background/Introduction (see end of document)

Subcommittee exercise to generate new solutions:

Group completed an exercise to help determine and prioritize waste prevention opportunities. Members evaluated all sectors generating organic wastes (i.e. residents, restaurants, food processors...) and tools needed such as education/public awareness, regulations, government leadership, productivity improvements, economic incentives) which could be used to meet the overall goal of waste prevention.

(The full list of ideas generated during the brainstorming exercise is listed below under **Brainstorming and Prioritizing***)

Note: Definitions for two of the tools explored are:

- **PRODUCTIVITY IMPROVEMENTS** (Such programs are aimed at improving resource productivity from manufacturers and business service providers. These include: Pollution prevention (P2), Lean manufacturing, Green permitting, Lightweighting, Industrial ecology, Technological advances, including Miniaturization and dematerialization and Micro- and nanotechnology. These efforts are all aimed at changing private-sector behavior through education, technical assistance, incentives, and/or regulation, and have considerable overlap with other strategies)
- **ALTERNATIVE BUSINESS MODELS** (Business models have emerged that reduce waste and prevent toxic pollution. These alternative models include: Design for Environment DfE, Supply Chain Management, Product Stewardship, leasing and "servicing")

Brainstorming Exercise

Brainstorming DRAFT Priorities:

- Price waste per pound - 8 dots
- Mandate grocery composting - 6 dots
- Mandate restaurant composting w/incentives - 4 dots
- Improve treatment plant sludge technology - 4 dots
- Minimize packaging and use compostable containers - 4 dots
- Support money for residential food waste digesters - 3 dots
- Case studies on successful waste reduction/organic projects - 3 dots
- Promote Vermont Fresh Network - 3 dots
- Mandate food manufacturing composting - 3 dots
- Introduce the Zero Waste Lunch challenge to schools in Vermont - 3 dots
- Improve system infrastructure for composting - statewide emphasis - 3 dots
- Use donations to food banks as tax deductions - 3 dots

RESIDENTIAL

Public Awareness & Action

- Educate homeowners that composting is cheaper than trash - 2 dots
- Public education
- Downtown containers
- Create neighborhood compost
- SW districts hold a monthly food collection event

Regulations/Mandate

- Residential composting

Economic Incentives

- Support money for residential food waste digesters - 3 dots

Governmental Leadership

- Provide backyard composting bins at reduced prices for residents - 1 dot

Alternative Business Models

- SW Districts collect residential compost - 2 dots

GROCERY

Public Awareness & Action

- Increase donations from commercial sector
- Educate/incentive that it's better for consumers to use less packaging (i.e., no plastic bags for bananas)

Regulations/Mandate

- Mandate grocery composting - 6 dots

Meat cutters - wrap in paper, not Styrofoam trays

Economic Incentives

Price waste per pound - 8 dots

Keep final cost similar to existing

Governmental Leadership

Want out of waste stream - need better liability laws or research

Provide subsidy/incentive for large scale hauling of compost material

Alternative Business Models

Reduce "shrink" by purchasing/marketing local produce

Develop/organize perishable food system to food pantries - 2 dots

Vocationally train more food staff - reduces inedible food waste

Other - Vermin control

Productivity Improvement

Reduce items that are not solid - diminish over-ordering

RESTAURANT

Public Awareness & Action

Changing portion size - green message for smaller meals - 1 dot

Case studies on successful waste reduction/organic projects - 3 dots

Regulations/Mandate

Mandate biodiesel - 1 dot

Economic Incentives

No paper placemats

Mandate restaurant composting w/incentives - 4 dots

Governmental Leadership

Provide alternative waste disposal options

Work w/grocers on liability issue on perishables

FOOD MANUFACTURING/PROCESSING

Public Awareness & Action

Promote Vermont Fresh Network - 3 dots

Advertise good Samaritan Laws - no liability

Promote food banks and what they do

Regulations/Mandate

Waste Prevention Recyclable Materials Subcommittee, 8/19/07 minutes

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Mandate food manufacturing composting - 3 dots

Economic Incentives

Subsidize research for biodegradable containers - 2 dots

Governmental Leadership

Use donations to food banks as tax deductions - 3 dots

Productivity Improvement

Minimize packaging and use compostable containers - 4 dots

Alternative Business Models

Donate off-spec cheeses that are still eligible to food bank - 2 dots

Incorporate cheese whey in composting

Whey as de-icer - 2 dots

Other

Combine composting and treatment sludge

Improve public awareness of treatment plant sludge

Improve treatment plant sludge technology - 4 dots

YARD WASTE

Regulations/Mandate

Yard waste collection from landscaping businesses

Alternative Business Models

Initiate neighborhood collection days, monthly or more frequently

OTHER/GENERAL

Public Awareness & Action

Targeting schools - statewide

Work statewide with food service directors, school administrators, & DOE administration to alter meal services programs resulting in waste prevention & reduction

Focusing on school meal programs accomplishes not only impacting waste prevention/reduction, but educates continuous generations of waste producers/consumers - 2 dots

Introduce the Zero Waste Lunch challenge to schools in Vermont - 3 dots

Composting & recycling programs in schools - 2 dots

Utilize school curriculum better to teach kids about waste prevention and reduction

Disseminate information on climate change connection to wasting organic material - 1 dot
Public forum for waste reduction discussion - 1 dot
Gleaming programs

Regulations/Mandate

Establish regulations for educational institutes to use degradable materials and washable items (utensils) and compost waste
Phased in ban on landfilling materials for which there is an existing market

Governmental Leadership

Commit to developing and reporting on indicator of organic waste general/prevention - 1 dot
GIS map generators and put up on state website so that connections can be made by users

Alternative Business Models

Transportation - pickup from communities more frequently (i.e., farms-manure to digesters) business - 1 dot
Businesses - reduce waste by a ratio, not a specific
Improve system infrastructure for composting - statewide emphasis - 3 dots
Define what contributes to composting - composition - 1 dot

Miscellaneous

Closed loop composting - explore how organic waste can be revisualized as input for another operation
Develop green energy/sustainable projects for organic feedstocks
Develop biodiesel infrastructure to re-direct grease/oil, etc. - 1 dot
Partnering food banks with schools to maximize use of waste/leftover food - 1 dot
Partner with SW districts on food collection
Connect compost collection with local farms
Create food business network in support of composting, recycling, waste reduction
Gift a composter to every 8th grader in 2008 - 1 dot
Sign on to the KOOL campaign
WOWW! We want zero waste

Next Steps:

Set meeting date to discuss the details of each of the priorities listed above.

Background/Introduction

The most current information on how much organic materials is generated and rescued or recycled comes from two sources. The first is the Solid Waste Program's analysis of solid waste reports combined with other information for the yearly Solid Waste Diversion and Disposal reports:

<http://www.anr.state.vt.us/dec/wastediv/solid/DandD.html>. However, for many years the requirement to classify the organic waste by its components was limited to wood waste and paper waste that was recycled (not composted). The reporting of different components of composted material was spotty at best. Since January of 2005, the quarterly reports for facilities was changed to separate organic waste into animal offal or carcasses, food waste, paper, wood waste, yard waste, ice cream waste, and other, which requires a listing.

An analysis for 2005 which includes the reporting facilities and known exempt facilities is in Table 1

Table 1: Compost Facilities 2005 (add units)

| Food | Ice Cream and Liquid Food Waste CI | Paper | Grass | Yard | Agricultural | Saw-dust | Wood, clean – ground | CleanWood /brush | Mortality /slaughter | Other | 2005 in tons (wet weight) |
|---------|------------------------------------|-------|-------|--------|--------------|----------|----------------------|------------------|----------------------|---------|---------------------------|
| 5315.24 | 4812.45 | 0 | 1.3 | 3219.8 | 5354.64 | 0 | 570.9 | 176.01 | 292.49 | 4825.85 | 24568.68 |
| 21.6 | 19.6 | 0.0 | 0.0 | 13.1 | 21.8 | 0.0 | 2.3 | 0.7 | 1.2 | 19.6 | 100.0 |

The large 'other' is most likely facilities that had combined loads and could not estimate the individual components. As indicated, these figures include known exempt facilities estimates (obtained by phone) but not all exempt food waste recyclers are known.

Residential Backyard Estimate: 23,884 (from total bins sold).

Trend in reported composting is seen in table 2.

Table 2 (units)

| 2005 | 2004 | 2003 | 2002 | 2001 | 2000 |
|--------|--------|--------|--------|--------|-------|
| 32,726 | 33,180 | 39,677 | 31,749 | 29,626 | 9,605 |

The other source is the Solid Waste Program's 2001 disposed waste composition study. This study looked at waste disposed at a rural and urban facility and separated the waste by its composition. The organics were the material left over after all else had been sorted out.

<http://www.anr.state.vt.us/dec/wastediv/solid/pubs/VT%20WASTE%20COMP.pdf>

. The report looked at individual loads that could be identified as from a particular sector, such as grocery stores and compared the types of waste from

that sector. However, it did not have the data to do a sector to sector comparison. The results of the analysis only gives the percentage in that sector compared to other waste in that sector.

Table 3

| Organics | Residential | Office | Retail | Restaurants | Grocery | Motels/Hotels |
|--------------|-------------|--------|--------|-------------|---------|---------------|
| Food/ | | | | | | |
| Dirty Paper | 21.3 | 17.9 | 14.5 | | | 20.1 |
| Yard | 0.7 | 1 | 0 | | | 0.3 |
| All organics | 22 | 18.9 | 14.5 | 51.2 | 47 | 20.4 |
| | | | | | | |

These figures are the percentage of the waste stream by sector. In other words, for all of the waste generated by this sector, the organic fraction was this percent. These figures are only comparative, because there is no information about what percentage of the total waste stream each sector represents. Say for example, residential waste was 40% of the waste stream and office waste . was 20%. The amount of residential organic waste generated would be $.22 \times 40 \times \text{total waste}$.or $0.088 \times \text{total waste}$. The amount of office organic waste generated would be $18.9 \times .20 \times \text{total waste}$ or $.038 \times \text{total waste}$.

There is no data to indicate how much organic material is left to be collected in general or by sector.