



State of Vermont  
Department of Environmental Conservation  
Waste Management & Prevention Division  
1 National Life Drive – Davis 1  
Montpelier, VT 05620-3704

## Universal Recycling Stakeholders Group Meeting Notes – December 19, 2019

### Group Members Present:

Dan Bell	AgriCycle
John Brabant	Vermonters for a Clean Environment
Kim Crosby	Casella Waste Systems
Ollie Cultrara	Addison County Solid Waste District
Natasha Duarte	Compost Association of Vermont
Kurt Erickson	VT Compost Company
Buzz Ferver	Perfect Circle Farm
Marcie Gallagher	VPIRG
Dan Goossen	Chittenden Solid Waste District
Carolyn Grodinsky	Grow Compost
Karl Hammer	VT Compost Company
Sid Hammer	VT Compost Company
Cassandra Hemenway	Central VT Solid Waste Mgmt. District
Jen Holliday	Chittenden Solid Waste District
Paula Kamperman	Bennington County Solid Waste Alliance
Tess Kennedy	Shouldice & Associates
Tom Kennedy	Greater Upper Valley & So. Windsor/Windham County Solid Waste Mgmt. Districts
John Leddy	Northwest Solid Waste Mgmt. District
Jason Maring	Vermont Food Bank
Michele Morris	Chittenden Solid Waste District
Brady O'Brien	VT Retailers and Grocers Association
Corey Plucker	Scott Equipment
George Parmenter	Hannaford's Supermarkets
Paul Tomasi	Northeast Kingdom Solid Waste Mgmt. District
Elly Ventura	Lamoille Regional Solid Waste Mgmt. District
Michael Batchter	Bennington County Solid Waste Alliance

### By phone

Shannon Choquette	Northeast Kingdom Solid Waste Mgmt. District
Pam Clapp	Solid Waste Alliance Communities
Craig Coker	Coker Composting and Consulting
Tom Gilbert	Black Dirt Farm
Alex DePillis	Vermont Department of Agriculture, Food & Markets
Mary O'Brien	So. Windsor/Windham County Solid Waste Mgmt. District
Ted Siegler	DSM Environmental Services
James Wojcik	Vanguard Renewables

**ANR Staff Present:**

Cathy Jamieson	Solid Waste Program Manager
Mia Roethlein	Solid Waste Program
Josh Kelly	Solid Waste Program
Rebecca Webber	Solid Waste Program

**Meeting Notes:**

**Welcome and Introductions** – Cathy Jamieson, DEC

**Food Waste Depackagers** – Craig Coker, Coker Composting and Consulting

Craig Coker gave a power point presentation on [Food Waste Depackagers](#).

**Questions/Discussion:**

Craig was asked about operation costs for depackagers and how much was spent on maintenance, as well as how much time operators spent cleaning blinded screens, etc.

- Craig reported a cost of \$13-15/ton as a combined cost, including maintenance, but didn't have specific information on maintenance requirements.

Group questioned whether packaging is recoverable for traditional recycling.

- Craig responded that most is not, so packaging does represent lost recycling value. Film is the primary type of packaging and with limited marketing outlets such as TREX who seems to prefer single use grocery bags, so not much is captured. Aluminum from coffee pods can be recycled. Many companies hire depackagers to meet sustainability goals and want their packaging to avoid landfilling. Some is incinerated.

Group discussed the potential of depackager output contamination (including PLU stickers) and questioned how the percentage of purity is measured.

- Craig explained that this is measured by a standard inert test – material is dried and screened to ¼ inch.
  - A stakeholder noted that this meant potentially there could be high levels of contamination and that this would be very problematic for sites receiving the organic materials for composting.
  - AgriCycle stated that they take contamination very seriously before organic materials are land-applied. AgriCycle's depackaged organics go to Anaerobic Digestion (AD) and are screened to a 2mm press coming from AD (liquid digest to traditional manure spreading, solids to bedding).
  - Craig's experience is that purity is around 92-98%, with contamination at 2-3% "as is" weight.
  - Group discussed how this contamination level compares to contamination from traditional composting process. Green Mountain Compost noted that the amount of plastic is higher in this process than their current composting stream, so they assume the amount of contamination remaining at end would be higher as well. However, if their own stream went through this process, they would end up with less plastic than they currently do. They have concerns about microplastics, but based on integrity of the film after depackaging, believes it would be a relatively small amount.
  - There was discussion that microplastics wouldn't be visible to eye (wouldn't be screened out). Group discussed other potential contamination reports. MA reported 2% contamination at one point (didn't specify by weight or volume—important because plastic is very light, so these are very different
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measures). Manufacturer data implies contamination rates are very low. It was noted that since compost is land-applied, that would mean low amounts per application could add up over years.

- It was noted that as a community, organics processors are struggling not with whether or not there's a role for depackaging, but what that role should be.
- Some expressed concerns about what had been a clean stream (source separated organic waste) being combined with the packaged stream.
- Questions were asked about whether we should be more concerned about what happens to the packaging and how we should balance recovery rate with chance of contamination.
- A stakeholder asked what the environmental impact of trucking scraps long distances out of state was and if that could be studied. DEC noted that the dynamic is changing, as processing infrastructure is proposed and built in state. Josh noted that DEC does not require hauler reporting, just facilities, so DEC doesn't have numbers for this analysis.
- A stakeholder suggested that by providing funding for organics processing infrastructure to depackaging, DEC was advocating shift toward depackaging and thus mixing streams that had previously been separate. Cathy noted that DEC's recent organics infrastructure RFP process was open to all types of processing, including composting and AD facilities.

## Food Scrap Management Discussion – DEC

DEC presented it's estimated food scrap management capacity for 2020 (see [Est. Vermont Food Scrap Management Need vs. Capacity 2020](#))

- Green bar represents need--actual amount diverted in 2017 (15k tons) plus estimated amount that will need management in 2020 (45k tons, based on 60% diversion of organics from waste stream by 2022, estimated by DSM in the [Systems Analysis of the Impact of Act 148](#)).
    - DSM's calculation of diverted organics considers food rescue.
  - Blue bars represent expected capacity (current facilities) and high capacity (with facility expansions), based on DEC conversations with facilities in 2018 and 2019.
    - Chicken farms represent ~4-5% of facility capacity; digesters represent ~2/3.
    - Capacities might be undercounted; SWMEs may be reporting food scrap hauling to facilities that DEC didn't include.
  - As of July 1st, all generators have to manage organics in accordance with hierarchy of uses. 38% of food waste thrown away is in packaging and can't be disregarded. Depackaging is going to need to play a role.
  - Generators are required by law to keep food residuals separate from waste, but ANR is not going to prohibit generators from commingling packaged and unpackaged food residuals.
  - Generators are allowed to dispose of a *de minimis* amount of food waste if they have food waste separation program in place that educates employees and the amount being disposed is a small amount--the general meaning of "de minimis."
  - DEC will recommend that generators manage organics at the highest possible level on the food recovery hierarchy, but doesn't have authority to force generators to specific levels.
  - Regarding markets, ANR can't favor one market option over another. There are incentives across the diverse portfolio of options. It is going to be expensive to use depackaging equipment, so there's still a financial advantage to keep non-packaged materials separate.
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*Discussion:*

**Round the Room:** Each stakeholder had 1-2 minutes to share their questions, concerns, and perspectives.

- A stakeholder asked if it was true that ANR can only encourage the hierarchy? The need for depackaging is recognized, but there has to be some way to attach a disincentive to driving materials out of state and mixing clean organics with plastic. Long wait on knowing about policy on chickens has disincentivized organics management by chicken farmers.
    - Josh noted that there is an interstate commerce law that limits one state's ability to impact commerce going to another state.
  - A stakeholder noted that it is common practice for government to drive policy through grant funding, tax incentives, etc. The Solid Waste Program recently issued a number of grants for moving the program forward to manage food waste. Did program give thought to incentivizing management of food residuals at the higher end of hierarchy? Agency is expected to follow that hierarchy, and it seems clear that ANR can influence this through granting, with those at lower end of hierarchy getting small amounts. The RFP is not how you set goals—should be determining goals and figuring out how to accomplish them.
  - A stakeholder commented that the Northeast Kingdom Solid Waste District is currently amending its Solid Waste Implementation Plan to incorporate the hierarchy and plans to conduct a feasibility study with USDA funding about human recovery.
  - A stakeholder commented that the hierarchy should be considering the spirit/point of law. If resources are going to move materials hundreds of miles in large trucks and spread microplastics, maybe we should all rethink before we move forward.
  - A stakeholder commented that this could lead to confusion by roles and the capacity of state, its laws, and market.
  - A stakeholder commented that in their experience, there is a belief that the organics diversion market is very weak and the Universal Recycling Law was written to correct that. It's not about ANR picking individual winners/losers, but the hierarchy is about choosing priority and values, and depackaging alters the entry point, inevitably edging out smaller haulers. By letting depackaging slip in, ANR is conceding that plastic contamination in soils is inevitable and acceptable for increased diversion.
  - A stakeholder asked why is ANR moving so quickly to adopt something it hasn't figured out to manage, not adequately applying precautionary principles? What is the deliberative process going to be? Some don't believe that the community statewide has shown adequate resolve on source separation, and needs to circle back to address it adequately. Is this a firm policy, what was the public process? Is this regulation?
    - Cathy noted that this is an agenda item because at the last meeting, it sounded like stakeholders wanted to understand more. The purpose of this discussion is to clarify how ANR intends to implement the law.
    - The stakeholder commented that the law requires separation at point of generation. Shouldn't folding in new technology require a public process?
      - Cathy responded that source separation is separating banned materials from solid waste. While the program is working on different levels of the hierarchy, VT DEC doesn't have the legal authority to require one hierarchy option over another and the law doesn't require separation of packaged food waste from unpackaged food wastes, as long as they are managed in accordance with the hierarchy.
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- The stakeholder commented that the public can petition on rulemaking, and it seems like something that involves millions of dollars and is going to create infrastructure should be considered further.
    - Cathy re-emphasized that DEC does not have the legal authority to require higher uses.
  - A stakeholder asked if SWME ordinances requiring source separation apply?
    - Mia noted that districts can have ordinances more stringent than DEC, that generators would have to follow.
  - A stakeholder commented that organics processors can create incentives by charging more for a tote of packaged food than unpackaged. Other than Hannaford's, almost all are source separating, and even most of Hannaford's is unpackaged.
  - A stakeholder asked what will incentives be for higher use? If 60% of food residuals are not packaged, and we want to encourage that not being mixed, what are the incentives for that? What type of education about environmental factors needs to happen?
  - A stakeholder commented that markets will likely drive lots of decisions. Elsewhere, processors have different tip fees for different contaminant levels; maybe if packaging is considered contamination, pricing could drive separation.
  - A stakeholder commented that perhaps generators should be asked to have separate streams; despite workforce challenges, this is a reasonable ask.
  - Hannaford's said reducing waste is one of top 3 sustainability challenges for them, with hunger relief with safe, edible food as 1<sup>st</sup> priority. Hannaford's is mixing packaged and unpackaged foods primarily to simplify processes (lots of turnover, part time help makes this necessary). When just diverting produce, it was fine, but now that we are diverting all food waste, impossible to separate. We have a "food" bin in each dept, and have had a 30% increase in overall diversion, with close to 0% going to landfills. We think the increase in diversion makes the contamination look comparatively small. We don't separate much for animal feed in Vermont...maybe because of Agency of Ag conversation years ago, which could be revisited.
    - This point was disputed, as a stakeholder noted that Hannaford's was working with Vermont chicken farmers through last fall.
  - The VT Foodbank said that since inception of law, food rescue/recovery has increased by more than 300%, so the "food for people" rung of the hierarchy is definitely working, even though there's still lots to do. Hannaford's has been unbelievably generous, and VT Foodbank does a lot of training with them using a toolkit that they could share with agencies.
  - A stakeholder commented that all of this is good information, but doesn't address application/end use of compost. Farmers are getting more engaged with benefits of ecosystem services (carbon sequestration), so when talking about % of contamination, actually talking about annual applications on working lands. End goal has to be 100% contamination free, or farms will be saturated in plastic, and compost won't be desirable.
  - A stakeholder commented that the VT Agency of Agriculture doesn't allow feeding meat-contaminated scraps to swine. Depackaging wasn't even on radar five years ago, so this is a new conversation. Ag already has problems with plastic being spread and doesn't want to see it get worse.
  - A stakeholder asked what is the definition of de minimis? Is it a specific %? What does it mean if it isn't a specific % of waste generated (weekly, monthly, annually) or a specific cap?
    - Josh noted that the specific amount is not currently defined in statute/law.
    - A stakeholder commented that guidance on de minimis would be valuable (to retailers via VTRGA, to all generators via haulers), including what types of materials might be covered and should be disseminated well before July 1.
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- A stakeholder commented that guidance from DEC should consider SWME guidance/enforcement needs. They are trying to push generators to higher level uses, so specifics about incentives to encourage diverse portfolios and examples of de minimis applications.
  - A stakeholder commented that AgriCycle is focused on food waste recovery through renewable energy, would like to see more infrastructure for that capture of what would otherwise go to landfills.
  - Scott Turbo-Separator is the only depackager designed and built in the U.S., and they would be happy to have a demo day for interested parties, including having visitors bring materials and do tests. The system is very adaptable for different packaging/residual types. They hear the demand for cleaner material and are deciding how to respond.
  - DSM is currently studying what happens to supposedly compostable “service ware” when it goes through depackager.
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