



Vermont Department of Environmental Conservation
Waste Management & Prevention Division, Solid Waste Program
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Role of Depackagers in Managing Food Scraps Stakeholder Group Meeting #6
Held on November 30, 2022 at National Life, Davis 2, Montpelier, Vermont with a virtual Teams video option.

Main Group Participants as Outlined in Act 170:

Michael Casella	Casella Waste Systems
Steven Cash	Vermont Department of Agriculture, Food & Markets
Billy Connelly	Vanguard Renewables
Jenna Evans	Ben and Jerry's
Tom Gilbert	Black Dirt Farm
Dan Goossen	Green Mountain Compost
Erin Sigrist	VT Retailers and Grocers Association

Other Group Participants:

Susan Alexander	Lamoille Solid Waste Mgmt. District
Christine Beling	EPA
Craig Coker	Coker Composting and Consulting
Nick D'Agostino	Vermont Compost Company
Natasha Duarte	Compost Association of Vermont
Caroline Gordon	Rural VT and Protect Our Soils
Sarah Lillibridge	Lamoille Solid Waste Mgmt. District
Emma Shouldice	Shouldice and AssociatesA
Mark Shea	Rutland County Solid Waste District
Shannon Choquette	Northeast Kingdom Waste Mgmt. District
Morgan Griffith	Vermont Department of Agriculture, Food & Markets
John Brabant	VTers for a Clean Environment
Peter Blair	Just Zero
Emily Johnston	Addison County Solid Waste District
Matt McMahon	MMR

ANR Participants:

Ben Gauthier	VT ANR – Solid Waste Management Program
Josh Kelly	VT ANR – Solid Waste Management Program
Mia Roethlein	VT ANR – Solid Waste Management Program
Dennis Fekert	VT ANR – Solid Waste Management Program
Matt Chapman	VT ANR – Waste Management and Prevention Division Director

Presenters:

Sarah Vose Ph.D. – State Toxicologist, VT Dept. of Health
Brief overview of what is known about the human health impacts of PFAS and microplastics

Main Topics: Food Recovery Management Hierarchy & Source Separation

Discussion with main group participants offering their recommendations on each of the following statutory charges:

“(1) recommendations on whether the organics management hierarchy in 10 V.S.A. § 6605k should apply to each generator of organic waste.

(2) whether the Agency of Natural Resources should modify its [existing policy](#) surrounding the source separation of organic wastes;

(3) any recommendations on the proper use of depackagers in the management of organic waste.”

Josh Kelly offered a recap from the last meeting and review of the main charge of the group- refer to language on top of agenda.

Two speakers presented. Dr. Sarah Vose and Brent Demers.

Dr. Sarah Vose, Vermont Department of Health

health impacts of PFOS and PFOA (only 2 of 10,000-,000 various PFAS chemicals) see [slide presentation](#)

- definition of reference dose (RfDs)
- US EPA RfDs for PFOA have decreased over time.
- PFOA is likely to be carcinogenic over time
- PFOS are resistant to metabolism and excretion. PFOS can stay in the body for a long time and it builds up and is hard to get rid of.
- Eventually PFAS might be addressed as a group to measure toxicity. Right now looking at individual.

Health impacts of microplastics

World Health Organization’s – [Dietary and Inhalation Exposure to nano- and microplastic Particles Paper](#)

- Microplastics can go from the micro scale to nano scale
- Size that can impact human health is less than 10 micrometers
- Size is only one attribute that affects absorption, exposure and hazard-material (HDPE, LDPE, etc.). Other attributes are surface, additives, shape (fragments, films, fibers, etc.)
- No comprehensive studies of these particles in food diet.
- microplastics found in seafood, fish, salt, beer, honey, milk, rice, sugar, seaweed. Data that is currently available is only representing a very small portion of our diet. i.e. no data on cereals, a major consumed food.
- Methods needed for analysis of microplastics in additional foods.
- Inhalation and dietary are the routes of exposure to nano microplastics
- Don’t have enough science to say how toxic these chemicals are to human health.

Q & A

Billy asked Dr. Vose if there are any Sources for data on microplastics on water and land.

Dr. Vose responded that public drinking water is based on mcls and don’t think microplastics is currently included.

Some work is being done to look at agriculture soils in VT.

Billy asked Why does the state of VT rely on EPA and not have its own data?

Dr. Vose explained that VT DOH doesn’t have the capacity to do it.

Does the state ever have a different toxicity value than what EPA has offered?

Sarah doesn't recall.

EPA is one of the authoritative bodies, WHO, ATSDR (toxicology branch of CDC)

EPA publishes these toxicity documents for state health departments.

Tom- referenced cups of risk slide.

PFOS-

If we are basing human tolerances on known data.

Tom-How from a policy perspective do we get out to prevent risk instead of relying on known data?

EU has a precautionary approach whereas the US allows use for public consumption until it is proven to be a hazard.

Tom asked again can the state be more preventative?

Sarah explained that it is all based on scientific data i.e. for drinking water, DOH makes guidance value and then DEC adopts as a standard.

Steve Cash asked about the risk cups, would risk cup shrink based on background levels?

Sarah- risk cup stays the same but the cup may already be half full.

Question was asked if there are values that exist?

Dr. Vose explained that toxicity values are combined with exposure estimates. You wouldn't want to let all of your PFOS exposure come from drinking water.

Microplastics becoming a vehicle for the uptake of other chemicals is another attribute.

Of the Plastics or materials in food chain what the most harmful?

Sarah- I'm not sure of the most harmful for least harmful, but generally her knowledge of toxicity of plastics is that 1, 2 and 5 are the plastics that are safest.

Caroline- what happens from a DOH perspective on emerging contaminants?

EPA develops an amount not to exceed of the contaminant. Develop federal regulations and then it trickles down to VT. i.e. levels of arsenic in apple juice.

VT DOH coordinates with DEC on emerging contaminants of concern.

Brent Demers- City Market

City Market follows food recovery hierarchy policy for food scrap diversion

They focus on getting edible food to people first.

300-350 tons of organic material from two stores.

They use LeanPath to reduce waste.

Looking to feed animals more but there isn't a clear structure.

In the past a chicken farmer wanted food scraps- only did it for 6 months since the farmer wasn't supplementing protein into the diet so there was a huge reduction in egg production for farmer and it was a strain transport wise for the farmer.

City Market would like to do more working with farmers.

Casella picking up food scraps that are going to the depackager facility and the digester now instead of going to Green Mtn Compost.

A significant amount of donations are made to Feeding Chittenden- pick up 3-4 times a week and they track donations.

City Market's material was a good option for Green Mtn Compost and it was a part of the story City Market told staff and brought them on tours to Green Mtn Compost facility to engage them in organics diversion.

Casella as their hauler made the decision to bring food scraps to the depackager and then to digester without first notifying City Market and City Market has some concerns with organics management practices in VT.

Dan asked how does source separation work for city market?

Brent commented that they do not have a need for one bin for everything. Staff are used to sorting packaged food from non packaged and also food for donation.

UVM did get a separate truck to haul their own food scraps to Green Mtn Compost facility where Casella had been hauling to prior, but City Market not doing that at this point.

Packaged food is going to Feeding Chittenden or is returned to vendors.

Staff at City Market were manually depackaging any packaged food that couldn't be donated or returned to vendor.

Brent stated that Depackager would be helpful for a major refrigeration malfunction.

Group discussed next agenda item of sharing recommendations.

Tom set up a google document for the group to work on in time between meetings. Not all got to it. Group agreed to go around room and share recommendations verbally.

Dan Goossen- Green Mountain compost facility- *Should hierarchy apply to each generator of organic waste?*

- Education should be a priority and enforcement should be used on the largest generators.
- Focus on large generators such as California's law.
- Hierarchy applies to everyone but focus should be on the largest generators should be that food goes for highest and best use when options are available. State could consider more requirements on largest generators. Look at cut offs in phase in part of the UR Law.

Regarding whether the Agency should modify its existing policy on source separation?

- The Agency should modify its policy to reflect the 2019 policy version 2
- Prohibit comingling of these two streams.
- Require generators to source separate.
- Generators should be allowed to send heavily packaged food to depackaging.
- Lightly packaged foods should be managed and separated.
- See Dan's written comments for further detail.
- Depackagers can provide options for diverting packaged food.
- Depackagers should not be allowed for source separated streams.

Steve Cash- VT Agency of Agriculture

- 1.) Helpful to define generators and make clear what a generator is and is not.
Clarify that a waste hauler is not a generator
- 2.) Haulers should not allow waste to avoid source separation requirements.
 - Should change source separation so that it should not include packaged food.
 - Sender and receiver of waste needs to agree to source separation requirements.
 - Outputs of depackagers should not be animal feed or compost.
 - Establish thresholds for microplastics and PFAS.
 - DEC should Regulate output.

Mike Casella- Casella Waste Systems

- Policies and procedures need to be vetted out so that there is a flexibility for that hauler.
 - Impacts to animal feed – need to make sure all standards are met and when can they move to a lower rung on hierarchy if the customer is not meeting the animal feed standards.
 - Does not think it should be in law.

 - What is the process in place for disposing of contaminated food?
 - Can VT force out of state haulers to comply with the law? State must enforce so there is not an unfair advantage to out of state haulers who don't comply.
 - Allow flexibility for where food scraps can go.
 - Any facility taking food scraps should have an Agency of Ag. permit and ANR permit.
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Need science and data to determine what is highest and best use.
State needs to hold all organics facilities to the same standard so playing field is fair.
State needs to have an understanding of existing capacity and needed.

Tom Gilbert-Black Dirt Farm

- Fundamentally the hierarchy is a powerful tool for creating a market industry and standard for a certain expectation
- Agency of Agriculture is involved in what goes for animal feed.
- How to make the determination of which tier of the hierarchy- such as a willing and able language. i.e. If city market can't find someone to pick up for animal feed then they can move on to next level.
- Hierarchy allows for benefits to common good and not just the individual.

Tom relayed an incident from running a hauling business highlighting contamination when source separation not followed.

State should consider adding requirements that apply to the generators and that there are supports for the hauler so that they are not in the enforcement role of applying requirements. State needs to enforce the requirements.

Depackaging- Need to look at risk mitigation and leveraging opportunities.

The blending of source separated materials with packaged food seems like an unacceptable risk to put on the VT public.

Need to be looking at the full system and consider soil as integral in fighting climate change.

There are known streams of materials that are impractical to separate and depackager is needed for those.

Any business using depackager must have a food recovery plan in place and employees must understand the depackager is an exemption.

Would also like clarity on the amount of actual packaged food that is available for disposal/diversion in VT. It is Tom's understanding that there is a lot that goes back to vendors.

Every operator in state to hold to the same standard. Facilities receiving VT food scraps should also agree to these standards.

Tom inquired about the de-minimis exemption.

Josh clarified that the de-minimis clause in the UR Law does allow for disposal in emergency situations such as refrigeration going down. ANR's [Food Scrap Ban Guidance](#) includes examples of de minimis application.

Billy Connelly- Vanguard Renewables

Questions

How much do we want to rely on data?

Billy calls for following the EPA hierarchy?

Why does VT have its own hierarchy?

We need to look at water, air and soil impact based on science and data.

Billy doesn't think the existing policy should be modified without data.

How much to rely on data?

What would it take for VT to collect data and collaborate on a regional level with bordering states.

Erin Sigrist-VT Retail and Grocers Association

- Allow for flexibility within hierarchy as said by others.
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- Retail and Grocers Association members calling for clarification and have received varying guidance from the Agency.
- Would prefer to streamline guidance and refer to EPA hierarchy. Easier since they have members cross state lines. Would be more efficient if all could refer to EPA hierarchy.
- Erin doesn't think the existing policy should be modified without data.
- Need to set a standard but more data is required to set it.

Jenna Evans- Ben and Jerry's (not in attendance)

need to ask for written comments from her after Jenna watches the recording and will be shared with group.

comment in chat on Teams from John Brabant:

“One possible solution to the out of state competition for instate food waste and their undercutting instate haulers and processors that would be required to only accept source separate food wastes could be a tax on food waste hauled out of state where not fully depackaged. There could also be an additional license with a quarterly licensing fee for hauler vehicles operating in Vermont to move packaged food waste out of state. The revenues from the tax and licensing fees could then be used to subsidize down the in-state hauler costs through grants not only to public sector entities, but also to private sector entities. The subsidy would place the hauling community in a better competitive situation.”

Next Steps

Tom reminded group to review the documents on the public file share.

All group members agreed to send written comments to Ben via email so it could be incorporated into a draft report of recommendations as required by Act 170 that will be a working document for all to review. Group to send written comments to Ben as soon as possible to allow for review prior to December 6th meeting.

Next meeting agenda:

½ hour for a discussion on each question/charge from legislation and a ½ hour for next steps.
