



February 11, 2022

House Committee on Natural Resources, Fish, and Wildlife
Vermont General Assembly
115 State Street
Montpelier, VT 05602

RE: H.501 – As Amended to Reflect the Language of S.282

Dear Chair Sheldon, and Members of the House Committee on Natural Resources, Fish, & Wildlife.

Thank you for the opportunity to testify on H.501, as it has been amended. My name is Peter Blair. I am a Staff Attorney with Conservation Law Foundation (“CLF”).

CLF is a nonprofit, member-supported, environmental organization working to conserve natural resources, protect public health, and build healthy communities in Vermont and throughout New England. Through its Zero Waste Project, CLF aims to improve waste diversion and recycling programs and protect communities and our environment from the dangers of unsustainable waste management practices and pollution from landfills and waste incinerators.

A little over a week ago, I testified in support of the original language of H.501. This language would have set a physical contamination standard for material intended for land application in Vermont. However, based on the testimony this committee heard over the last few days, we understand this approach is premature. Primarily because while microplastic contamination is a systematic challenge, and one organic recycling is not immune from, there are currently data gaps that impact the Agency of Natural Resources ability to develop methodologies and processes for calculating and quantifying the amount of microplastics in soil amendments. Additionally, there were concerns over the financial implications that the standard may have on small composters.

Given the significance of these concerns, CLF strongly supports the decision to amend H.501, as the new language will not only create a collaborate stakeholder process that will address these concerns, but also will create the basis for the development of regulations that will address broader issue of contamination in Vermont’s food recycling system.

I. Background on the Restructure of the Bill

Before I begin discussing the specifics of the bill, I think it is important to understand why the scope of the legislation was narrowed to focus more on depackaging technology, almost exclusively. As Mr. Gilbert explained in his testimony earlier this week, physical contamination standards can be an important failsafe that ensures that contaminated material is not spread on

Vermont's farmlands. However, the more pressing issue is developing and designing programs and policies that uphold the values of the Universal Recycling Law which emphasizes source separation to ensure that food waste is managed in a way that limits the amount of contamination entering the system in the first place. With any type of recycling system, the earlier the recyclable material – whether it is plastic, glass, cardboard, or food waste – is separated from everything else the better the system functions.

Depackaging technology is therefore the antithesis to source separation and represents one of the biggest concerns in terms of contamination in the organic waste stream. As I explained in my previous testimony, food depackaging is a technique that involves mechanically separating organic food waste from inorganic packaging. Most of this packaging is plastic. This technology is very new in the United States. The first depackaging facility in the country was constructed in 2018. This facility was developed in Exeter Maine by Agri-cycle to bolster the company's anaerobic digestion business. Now a handful of facilities exist, including Casella's facility in Williston, Vermont.

II. Section 2 – Study of Depackaging Technology

Given that this technology is so new, there are serious concerns regarding the quality of the organic material it produces, and what that material can be used for. There are also concerns regarding how this technology is impacting the requirements and intent of the Universal Recycling Law. Therefore, it is critical that we slow down and begin to understand what is going on. This is where the new language of H,501 comes into play.

Section II of the bill requires the Agency of Natural Resources to develop a stakeholder process to address important questions regarding depackaging technology, the Universal Recycling Law, and contamination in soil amendments. This stakeholder group will culminate with a formal report that will provide the basis for a rulemaking process. This report will also be presented to the legislature and may be used to inform additional legislation, if necessary.

H.501 contains a clear list of requirements for what needs to be included in the final report. Collectively, these requirements will shed light on the current state of depackaging in Vermont. I want to address several of the requirements and explain why they are important.

The report must include a summary of the chain of custody of all the materials processed by depackaging facilities. This will explain how much food waste is currently being managed by depackaging. That is, how much of the overall organic market has this facility already taken over. It will also help understand the types of material that is being sent for depackaging. This is important because the types of packaging greatly impact the effectiveness of these machines. Evidence shows that depackaging systems work best with homogenous loads – that is loads of identical material. Like the Ben and Jerry's ice cream example Mr. Casella provided. This is because the machine can be set to deal with the single type of packaging without needing to

switch the screens and level of force used to grind and separate the material. When you start processing mixed loads of various types of packaging the effectiveness can drop significantly resulting in increased contamination.

The report must also include a summary of how the organic waste and the packaging waste generated from the depackaging facility is used. There are concerns that depackaging takes readily recyclable material like PET and contaminates it to an extent where it no longer has any market value and therefore can only be incinerated or landfilled. The packaging generated from food waste that Vermont is currently sending to the depackaging facility in Maine is currently being incinerated because the material no longer has any value and cannot be recycled. Additionally, it is unclear whether the organic output can be used for anything other than composting or anaerobic digestion which are the least preferred methods according to Vermont's food management hierarchy.

Additionally, the report must address the level of microplastic and PFAS contamination in the finished product. As I explained in my previous testimony, while convenient, depackaging systems are known to result in an organic waste stream that is contaminated with shredded plastic waste. Manufacturers of depackaging equipment list a contamination rate of at least 0.5%, and in some cases contamination rates as high as 2-3%. According to Biocycle, the contamination rate ranges between 3-10%. This range of contamination is a result of the wide array of variables that impact how effective these machines are. Evaluating the level of microplastics will give a clear indication of the range of contamination at the facility and which types of loads and processes produce the cleanest material. This information will be important for setting regulations on how these facilities must operate moving forward.

The report must also evaluate whether the Agency can implement the food waste hierarchy in a more stringent manner. It is CLF's belief that the food waste hierarchy is not simply a policy or a menu of options for food waste generators but instead reflects binding law. However, I understand there are differing opinions on this subject. Regardless, what is undeniable is that the fact that the legislature chose to include this language in the law. Therefore, it is important that we understand the extent to which depackaging technology limits or undermines the ability of food waste to be put to higher and better uses according to the hierarchy. Not only to the extent the output is limited to composting or anaerobic digestion, how prevalent the process of commingling both packaged and unpackaged food waste and sending it to depackaging. Lightly packaged food like fruit with PLU stickers or baked good in clam shells can be easily source separated which not only ensures a cleaner final product if the material is composted or digested but can be used for feeding people or animals.

Finally, the report must also review the methods used by domestic and international jurisdictions to evaluate the percentage of physical contamination in the material produced by depackaging facilities, residual waste, digestate, compost, and soil amendment. Through this process the Agency and the stakeholder can look to the dozens of other jurisdictions that currently have

physical contamination standards to determine the testing frequency and methodology that makes the most sense for Vermont.

III. Moratorium on New or Expanded Food Depackaging Facilities

Ideally, these are all questions which the Agency should have addressed prior to opening the door to depackaging in the first place. However, that is not the case. CLF submitted public records requests to understand how the Agency choose to integrate this technology into Vermont's organic recycling system and the documents showed that this process has had unintended consequences.

We first found that in 2019, the Agency of Natural Resources issued a permit authorizing ALVA Waste Services to begin hauling food waste in Vermont to Agri-cycles depackaging facility in Maine.¹ Internal and external correspondence shows the impact of this decision was not fully understood when the permit was issued. The Agency was unaware that the packaging material would be incinerated as opposed to recycled.² Additionally, the Agency did not anticipate that ALVA would begin hauling both packaged and unpackaged organics to Maine. This opened the door for generators to begin comingling both packaged and unpackaged food waste and sending it to Vermont because it was cheaper to just throw it all into one container and have it delt with in Maine.³

Despite this information, the Agency then moved forward with approving a permit for Casella to construct and operate a depackaging facility in Vermont. To my knowledge, the permit does not specify levels of contamination, nor does it address what material is eligible for depackaging, whether non-packaged food waste can be sent to the facility, the impact that depackaging process has on the source separation requirements of the Universal Recycling Law, or how the packaging material generated from the depackaging machine must be managed.

Given that the door has already been open to this technology without a careful consideration of these questions, it is important that no additional capacity be permitting until we have clear answers. Section one of the bill would implement a moratorium on the permitting of new depackaging facilities, or the expansion of existing ones, until both the study is completed, and rules are promulgated. CLF strongly supports this requirement as it would prevent any further deterioration of the values of the Universal Recycling Law as we begin to gather more information. Moreover, it would halt additional depackaging capacity which may be contributing to microplastics in soil amendments.

¹ Attachment 1

² Attachment 2

³ Attachment 1



I agreed with the concerns raised by Director Chapman regarding amendments to the existing facility. Amendments to the existing facility may be necessary to addressing the requirements of the study. However, we cannot allow more depackaging capacity to be developed before we understand the current way the facility is working. A solution could be to allow for amendments so long as they do not increase capacity.

IV. Conclusion

CLF has taken such a strong position on this issue because Vermont is rightfully being recognized as the national leader in organic waste management. The passage of the Universal Recycling Law (Act 148) set the standard for how to properly manage food waste. With that recognition comes significant responsibility. States throughout New England and beyond are looking to Vermont to understand how to prohibit the landfilling of food waste and develop an organic waste recycling system that creates healthy soil amendments that nourish working landscapes.

As amended, H.501 recharts Vermont's path in a way that will not only benefit the state, but hopefully, many other jurisdictions. Thank you for your times and consideration of this testimony. I am happy to answer any questions you may have.

Best.

Peter Blair
Staff Attorney
Conservation Law Foundation.



Attachment 1: Correspondence Between Benjamin Gauthier and Tom Gilbert – July 2, 2019.

From: Tom Gilbert <tom@blackdirtfarm.com>
Sent: Tuesday, July 2, 2019 10:28 AM
To: Gauthier, Benjamin
Subject: Re: Phone Call Follow Up

ben - thanks so much. i appreciate this. FYI - someone else is collecting comingled organics now. Not sure who it is - Casella? - but they are picking up in Barre region and just picked up all the price chopper accounts for VT. We just got notice we're done end of July. Between Hannaford's and PC, we just lost 27% of our business, as a reference point. It is an entirely unviable situation economically and there aren't any other large anchor generators in these rural areas. I could do the math out for you, but basically its impossible to replace these larger generators (a school typically takes 2-3 times the amount of time per container than a grocery, so the difference of servicing 100 totes in a day from small generators compared to large generators is roughly 3.5 hrs, which you obviously can't make up). This thing is going to completely undermine what's working, as you know. I wonder if an equity of service requirement might be worth considering? In other words, if you collect in a given region from chain stores, you also need to be willing to collect from the schools and general stores.... seems like the most appropriate solutions - keeps market competition in tact but also makes sure that market mechanisms don't mean small entities loose out on service or end up with extremely high service fees. Just some thoughts.

tom

Tom Gilbert

Black Dirt Farm, Owner/ Operator

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On Mon, Jul 1, 2019 at 2:48 PM Gauthier, Benjamin <Benjamin.Gauthier@vermont.gov> wrote:

Hi Tom,

Always good talking with you. Here are the things I promised in a response.

Legalities of Combining Source Separated Organics with Packaged Organics and Acceptable Destinations

As I mentioned on the phone, when I wrote the permit for ALVA Waste Services to be an aggregation point for shipment to Agricycle I envisioned it solely being packaged organics. Admittedly, we didn't expressly prohibit the combination of SSO & packaged waste either, so I can see how generators would capitalize on the cost-savings opportunity of combining their SSO and packaged organics into one bin. Here is my thought process after reading through applicable rules & statutes. Statute includes a definition for both "food residual" and "source separated" (10 VSA 6602). Packaged organics - in my interpretation - cannot meet the definition for source separated and in turn the definition for food residual since they require additional treatment to separate the organics from the non-compostable and/or recyclable constituents. If that is true, then the practice of combining SSO with unprocessed solid waste (packaged organics) appears to be in direct conflict with 10 VSA 6605k which requires a generator "separate food residuals from other solid waste..." and "arrange for the transfer of food residuals to a location that manages food residuals in a manner consistent with the priority uses established under (a)(2)-(5) of this section (the food residuals management hierarchy).

At a minimum, I think the Program owes generators, haulers and facilities some clarity on what the requirements allow and do not allow on this issue, and possibly a new policy or rule revision. I've organized a meeting tomorrow when Cathy comes back from vacation to discuss.

Out-of-State Disposal of VT Food Residuals at a Landfill

Food residuals, which are source separated by definition, are banned from landfilling after July 1, 2020 (10 VSA 6621a), so food residuals collected in VT cannot be brought to another state for landfilling - even if that practice is in conformance with the destination state's regulations. Further, hauler permits all contain boilerplate language directly referencing the hierarchy statute prioritizing the acceptable destinations. Landfilling is not included on that list.

Incineration of Depackager Residual

You raised a good question about the acceptability of incinerating the non-organic depackager residual stream (i.e., cardboard, plastics, foils, etc.). This residual stream does not meet the definition of "mandated recyclables" in 10 VSA 6602 because it has not been source separated so in my opinion it is not subject to the landfill ban. I suspect it would require significant additional treatment for the plastics, metals and cardboard in the depackager residual to be marketable. No facility that I am aware of is currently conducting that treatment.

Agricycle Hauler Permit - see attached. If you have any specific questions you can call Cheryl Hamilton at (802)522-5949 or chery.hamilton@vermont.gov<mailto:chery.hamilton@vermont.gov>

ANR Report on Landfill Operation in the State:

The scope as adopted is a little different than what you had mentioned in the call, but my recollection was correct. ANR does have to draft a report on landfill feasibility as a part of our next biennial report on solid waste. It was part of S.113. Here is the link to the text, you can find the landfill report language it under Section 4 or search for "report on landfill"
<https://legislature.vermont.gov/Documents/2020/Docs/ACTS/ACT069/ACT069%20As%20Enacted.pdf>

I think that was everything, but let me know if I left something out. I'll reach out to you as soon as the Program has settled on a policy for the SSO/Packaged Organics going forward.

[MOM ANR (003)]

Ben Gauthier
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Attachment 2: Correspondence Between Josh Kelly and Kimberly Crosby, September 10, 2020.

From: Kelly, Josh
Sent: Thursday, September 10, 2020 5:02 PM
To: Kimberly Crosby
Cc: Jamieson, Cathy; Stuhl, Emma (Emma.Stuhl@vermont.gov)
Subject: RE: Packaged Food Waste Sent Out of State

Hi Kim,
Thanks for your patience as we've worked to get you a response here.

The franchise fee applies to solid waste disposed at landfills in VT, transfer stations that send solid waste for disposal out-of-state, or haulers that transport solid waste for disposal out-of-state.

The packaging associated with food waste sent out of state for depackaging is similar to recycling residuals or MRF residuals from recyclables sent out of state for processing. When recyclables are processed/sorted in state, the MRF residuals are subject to the state franchise fee. If those same recyclables were hauled (before processing/sorting) to a MRF out of state, the out-of-state MRF would not be subject to paying the franchise fee on those MRF residuals.

Please let us know if you have other questions.
Thanks,
Josh

Josh Kelly, Materials Management Section Chief
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1 National Life Drive, Davis 1, Montpelier, VT 05602
(802) 522-5897, josh.kelly@vermont.gov

From: Kimberly Crosby <Kimberly.Crosby@casella.com>
Sent: Thursday, August 13, 2020 1:00 PM
To: Kelly, Josh <Josh.Kelly@vermont.gov>
Subject: Packaged Food Waste Sent Out of State

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Josh,

At the Universal Stakeholder meeting last December where we heard various presentations on depacking, I recall Agricycle being present along with a representative from Hannaford's. Hannaford's discussed that they were sending their organic waste, SSO & packaged material combined, to the depackaging facility in Maine. Agricycle stated that the residual waste from the depacking unit, is then sent to Maine's waste to energy facility. My first question is, since waste to energy is viewed by the State of Vermont as disposal, would the residual waste that is sent to the incinerator from the material sent by Hannaford's or any other generator from VT, be subject to Vermont's franchise fee? Secondly, is there data available on how much organic waste from VT is being sent to Maine's depacking facility and/or Agricycle's digester? I tried searching Retrac but couldn't find anything. I was able to obtain a copy of Agricycle's annual report from MEDEP that shows they received around 2800 tons of SSO from VT, but can't find any information on what is being sent to the depacking facility from VT.

I appreciate any insight you may be able to provide – thanks!

Kim Crosby
Environmental Compliance Manager
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