



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 Minutes – September 24, 2018, 1-3pm

Group Members Present:

Susan Alexander	Lamoille Regional Solid Waste Mgmt. District
Patrick Austin	Austin's Rubbish and Roll Off Service
Michael Batcher	Bennington Solid Waste Alliance
Kim Crosby	Casella Waste Systems
Alex DePillis	Vermont Department of Agriculture, Food & Markets
Craig Goodenough	Goodenough Rubbish Removal
Tess Kennedy	Shouldice & Associates
Tom Kennedy	Greater Upper Valley & So. Windsor/Windham County Solid Waste Mgmt. Districts
Kyle Lanzit	Grow Compost
John Leddy	Northwest Solid Waste District
Elena Mihaly	Conservation Law Foundation
Michele Morris	Chittenden Solid Waste District
Al Sabino	Casella Waste Systems
Bob Sandberg	Cookeville Compost
Paul Tomasi	Northeast Kingdom Solid Waste Mgmt. District
Carl Witke	Central VT Solid Waste Mgmt. District

By phone

Pam Clapp	Solid Waste Alliance Communities
Elizabeth Cultrara	EcoAmericorps Member, Addison County Solid Waste Management District
Dan Goossen	Green Mountain Compost
Frank Sawiki	Town of Canaan
Heather Shouldice	Shouldice & Associates
Ted Siegler	DSM Environmental Services
Natalie Starr	DSM Environmental Services

ANR Staff Present:

Rebecca Ellis	DEC Deputy Commissioner
Cathy Jamieson	Solid Waste Program Manager
Mia Roethlein	Solid Waste Program
Josh Kelly	Solid Waste Program
Rebecca Webber	Solid Waste Program

Presenter:

Meredith Niles	University of Vermont
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Minutes

Welcome and Introductions – Cathy Jamieson, DEC

(1:00 – 1:10)

- 1:00pm – Group reviewed meeting ground rules and approved them. Universal Recycling Stakeholders ground rules included:
 - Everyone has a chance to speak and participate
 - Limit comment to 1-2 minutes
 - Focus comment on the topic that is being discussed
 - Be constructive, respectful and polite
 - Use specific examples
 - Speak up
 - Pat Austin suggested that the comment time limit seemed unnecessary. Cathy Jamieson responded that the group would stick with the 1-2 minute limit on the first round of comments, so that everyone would have a chance to speak, and then, if someone wanted to make a longer point, there could be another round for those comments.

UVM Household Food Scraps Survey – Dr. Meredith Niles

(1:05 – 2:10)

- Meredith Niles presented the work of UVM’s Recycling Organics and Resources Group (ROAR).
 - ROAR works on Sustainable Materials Management issues, including minimizing system costs, maximizing environmental benefits, taking into account attitudes and creating partnerships
 - ROAR recently completed a survey on household food scrap management (see PPT presentation, full report and one-pager)
 - Food scrap survey was part of the “Vermont Poll,” a statewide representative poll
 - Survey results included:
 - 71% of Vermonters had heard of food waste law (more likely: homeowners, younger)
 - 56% agreed food waste should be banned from landfill (higher agreement: higher education level, women, currently composting, households not using garbage for food waste disposal)
 - Current Food Scrap Management Strategies:
 - 72% currently manage food scraps via backyard composting or feeding to animals
 - 43% currently manage food scraps by throwing in garbage
 - Most respondents currently use 1 (46%) or 2 (38%) strategies for disposing of food waste
 - Backyard composting rates are highest among households in rural counties, younger, homeowners
 - Rate of putting food scraps into garbage were highest among renters, households without knowledge of Act 148
 - Curbside food scrap pickup rates were highest in larger households, households without knowledge of Act 148
 - Future Food Scrap Management Strategies:
 - Most respondents planned to stay with their current food scrap management strategy, except those currently disposing of food scraps in the garbage
 - Those most likely to backyard compost were: rural, younger, homeowners, larger, households 1-2 children
 - Those most likely to use garbage disposals were: urban, wealthier
 - Those most likely to use curbside pick-up: urban, renters
 - Future Use of Curbside Pickup
 - 40% would not use a curbside pick-up
 - Most wanted weekly curbside pick-up

- Households more likely to do curbside: those currently disposing of food in garbage or garbage disposal, urban households, households with 2 children, those using curbside already
 - Households less likely to do curbside: currently backyard composting, homeowners
 - Those with higher willingness to pay for curbside pick-up: higher education level, households with 2 children, younger households, those already using
 - Key results:
 - Most respondents know about law and support banning food waste from landfills.
 - Significant awareness gap of older Vermonters and renters
 - Most respondents are already using compost as strategy and intend to do some in the future (which means there's potential value in backyard composting education)
 - Future topics for ROAR to explore:
 - Understanding tradeoffs vs benefits (especially in rural areas)
 - Barriers to quality participation in recycling/composting
 - Systems wide analysis of challenges (retailers, haulers, compost and recycling facilities, solid waste districts, households)
 - Compost quality with varying "recipes" and end uses
 - Discussion and questions for Meredith:
 - Michele Morris inquired about what density was considered urban in the study and whether SWMEs could get access to raw county-level data. Meredith can get that information on density, but said that the survey didn't have an adequate sample size to be extrapolated to the county level (except perhaps for a couple of counties)—she could work with SWMEs to look at their data specifically.
 - Rebecca Ellis noted that there are very few curbside subscription programs, so most respondents must have been Brattleboro's program in Windham County.
 - Rebecca Ellis inquired how, from a research perspective, researchers handle people answering "I wouldn't pay anything" because that's just how these types of questions get answered. Meredith acknowledged that this was a complicated topic in survey design but noted that she didn't see a red flag with that question. Responses seemed to correlate with lower income households. Rebecca asked if there was any way to make the question have a ranking or possibly a question like "if you had \$10, what would you spend it on?" Meredith acknowledged that it might be possible to include a variety of question types in future polling, but explained that it's hard with the Vermonter poll, where researchers pay per question.
 - Natalie asked about splitting backyard composting from feeding pets and livestock. Meredith agreed that would be a great follow-up question.
 - Various people asked about the total length of the Vermonter poll (~20 minutes), the sample size—specifically, how many were on the initial list vs. those that participated (couldn't say off top of her head), where these questions were in the full list of questions (unknown) and whether all completed the full poll (she has responses on all questions from all participants).
 - Pat Austin commented that this group is trying to decide whether haulers should be doing curbside hauling of food scraps and based on the amount of people willing to pay combined with current and future strategies, he's just not seeing many people willing to pay. He notes that it's not surprising that most people don't want to pay, but as he sees this data and his market, there's just not much there. Meredith Niles said she doesn't implement policy but is just trying to provide high quality data to policymakers. She recognizes that the survey does suggest a certain number of people won't be willing to pay, but they still see it as the second most likely strategy for future management, even though it's much less significant than backyard composting.
 - Al Sabino commented that the argument has been that density might make the market, but he's seeing that density of area doesn't necessarily equate to route density.
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- Tom Kennedy asked about how the education and income levels were divided. Meredith referred him to the full report, which shows there were 6 education levels and income levels were above and below a threshold.
 - Susan Alexander asked how the knowledge of the Act 148 question was phrased. Meredith Nile explained that respondents were asked “have you heard of Vermont’s Food Waste Law?” and all were then informed that by 2020 food scraps would be landfill banned under Vermont law before hearing the rest of the survey.
 - Al Sabino noted that the order of the questions could have impacted the responses. Meredith acknowledged this, but they didn’t have an option to shuffle questions in the Vermonter poll and that the order questions were asked is the same as the order they fall in her report.
 - Al Sabino noted that 10.7% seems very high for curbside given the current availability of that service statewide, which suggests that respondents may not have been representative. He thinks that frequency response would have been affected if the question on cost had fallen before it. Meredith responded that they chose to put the cost question at the end because evidence showed that frequency would go down otherwise and noted that they have sometimes randomized or flipped these questions, but can’t on the Vermonter poll. She suspected that urban density would have an impact, as it seems to have a higher demand.
 - Paul Tomasi asked if perhaps the high curbside response was because respondents thought the question was about non-organics and suggested that perhaps the poll should require them to choose only one option. Meredith agreed that this would be a good idea in the future and noted that she could look back at the data and qualify the report if people in regions without curbside options were reporting use of curbside pick-up.
 - Meredith reported that they hope to look at how Vermont compares to other states/regions in future, but that this survey is one of the first statewide polls and in a rural state in the U.S.—most done previously have been to urban areas, though there are some Canadian options. Mia Roethlein asked about comparing the results to those of other states without laws. Meredith responded that they are trying to get funding to take that step.
 - Al Sabino suggested that they talk to BioCycle about including these results in their publications; Meredith confirmed that they are.
 - Natalie Starr asked how response rates have changed since 1990 and suggested that internet surveys might be an option. Meredith noted that the Vermonter poll does use cell numbers and that internet surveys have the lowest response rates, while phone surveys still have the highest.
 - Kyle Lanzit noted that, while Grow Compost has an all-commercial collection program, they do collect apartment and condo food waste that has been aggregated and speculated that maybe respondents did not consider this curbside. Or maybe those type of aggregate collections are the reason for higher number of respondents saying they use curbside pick-up. He also suggested that the payment portion could be “teased out” (as presumably the Brattleboro folks are paying via taxes). Grow Compost would be interested in contracting with municipalities to create the artificial density/volume that would make programs viable. Meredith responded that the question of whether people see the cost or not is an interesting one.
 - Craig Goodenough reported that when Brattleboro instituted its pay as you throw system (residents buy bags), that provided an incentive to decrease disposal, and participation went up dramatically. He asked how cost levels were determined. Meredith responded that it was done in consultation with Casella. Craig suggested that he didn’t believe it could be done for \$10/month; Kim Crosby agreed that they couldn’t, although perhaps some very small haulers who focus on only food scraps could. Kim said that for effective policy we need to look at what haulers need to charge, not these price points.
 - Pat Austin noted that with municipal programs, people don’t realize they’re paying solid waste districts, so cost is hidden.
 - Al Sabino noted that if you could offer the service for \$10, but only once a month, that would be a barrier—people would not actually want monthly service as they might want food scrap pick up more often.
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- Susan Alexander said that while we don't know what it costs, we know what the costs of our systems are, and this would have less of a tipping fee than trash.
- Pat Austin asked about Chittenden's pilot. Kim Crosby reported that it was limited to South Burlington, cost \$20/month, had very little participation, and was not profitable. Pat Austin noted that the problem is that food waste has so many other options besides curbside. Josh Kelly suggested that the best litmus test is how much people are charging (such as the Burlington service charging \$12/month), maybe Brattleboro, with its density, is a model to consider.
- Al Sabino noted that collection is the high cost for haulers because they can never really get past 2 compartment trucks (trash and recycling).
- Ted Siegler cautioned about self-selection and social desirability biases, so that surveys that ask about recycling typically get responses very different from actual behavior. Meredith responded that there was less self-selection here because it was part of the Vermonter poll, but the social desirability bias was called out in their report as a possible factor.

DRAFT Food Scrap Processing Capacity Data – Josh Kelly, DEC

(2:10 – 2:45)

- Josh Kelly explained that DSM is currently working on an updated Waste Composition Study, and results will be released in early 2019
 - In the meantime, the UR team has been compiling an estimate of food scrap processing need, capacity, and the gap between need and capacity in 2020 (calculations do not include backyard composting):
 - Rough calculation of 2020 need for food scrap management in facilities: ~47,900 tons/year
 - Need is based on the 2013 Waste Composition Study data, 2016 disposal rate, and DSM calculation that 60% of total food waste will ultimately need to be managed (which may be optimistic).
 - Rough calculation of 2020 capacity for food scrap management in facilities: ~23,400-35,100 tons/year.
 - It's likely this capacity is underestimated, because calculations do not include small farms, digesters processing food processing residuals, out-of-state digesters, waste reduction, food donation, animal feed, or home/community composting.
 - Gap will need to be reassessed after the 2018 waste comp results and ANR's organics grants are made, but currently projected to be ~12,800-24,500 tons/year.
 - Pat Austin suggested that most districts could never come up with a 60% match for the organics infrastructure grants, so these are not accessible to the regions that really need the grants. Josh Kelly and Cathy Jamieson responded that these are the same match requirements as grants awarded during landfill closure in the late 80s, and that process had numerous applicants from across the state.
 - Josh Kelly noted that these calculations of the gap in organics processing used regional population, not facility location to determine the "need" for sake of simplicity.
 - Al Sabino thought that Rutland/Bennington should maybe be separated, since Massachusetts becomes a source for those regions.
 - Cathy Jamieson noted that the map could easily change if a large anaerobic digester began accepting post-consumer food scraps from many regions.
 - Al Sabino noted that they're seeing trucking as more and more of the cost issue (driver shortage, electronic logging of hours), meaning that local options might be more feasible than a regional digester.
 - Meredith Niles asked how long DEC has done waste composition studies. ANR staff responded that before the 2013 study, the previous one was 2001. Meredith wondered whether the 14% of waste that was food scraps was close to a long-term average, and what it might have been in 2001?
 - Ted Siegler said that it was difficult to compare waste composition data results across states, as the study gives percentages and waste is getting lighter, and also, definitions of organics vs. food waste are different for each state.
 - Paul Tomasi reported that NEK did regional estimate for need and capacity four years ago and that he could pass along that information.
 - Elizabeth Cultrara reported that Addison and CVSWMD did an analysis based on need.
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- Paul Tomasi said that while he understands the methodology DEC used, he thinks it's less applicable for them, since they don't have the commercial load (and larger cities in the region are not in the district)
- Kyle Lanzit asked about areas where tourists (who aren't counted in population) impact results. Susan Alexander explained that numbers can be corrected for # of beds rented, etc.
- Al Sabino asked if it would be possible to put composting facilities of a certain size back on the map, because it would be good for legislators to see.
- Kim Crosby noted that there's always a difference between permitting and operational capacity, and Josh clarified that this analysis used operational capacity to avoid overestimating capacity.
- Josh Kelly explained that DSM is working with Castleton on the backyard composting survey for the waste composition study and will hopefully be able to share preliminary results at the next meeting (November 8). Natalie Starr noted that these results may support this analysis but may also raise more questions.
- Alex DePillis said he's been looking at potential for food scraps to go to digesters, and he's not sure there will be enough food scraps. Though he thinks that regional solutions including New Hampshire and Massachusetts and other feedstocks like manure and residuals could provide enough. Cathy Jamieson noted that digesters could be built at a waste water treatment plants. Alex added that waste water biosolids could go to a digester. Susan Alexander noted that if a digester were built and were more financially viable, it might be competing with other processing options. Alex clarified that the project wouldn't be built unless a hauler partner was in place because they couldn't get financing without guaranteed feedstock.

Next Steps

(2:30-2:40pm)

- **Biennial Report on Solid Waste** – ANR will circulate and post for public comment in Fall, with ANR recommendations
- **Next Meeting** – November 8th, which is still during public comment period for the Biennial Report on Solid Waste.

Meeting Adjourned

(2:40pm)
