

# **Regional Composting Working Group Meeting Minutes**

## **Tuesday May 4, 2021 4 PM**

### **I. Call to Order 4:03 pm**

**Members present:** Maggie Morrison (ORCSD), Jenn Andrews (UNH Sustainability Institute), Nell Neal (Durham Integrated Waste Management Advisory Committee), Mary Caulfield (Durham Integrated Waste Management Advisory Committee), Dean Rubine (Lee Sustainability Advisory Committee)

**Members absent:** Chuck Cox (Lee Sustainability Advisory Committee)

**Public Present:** N/A

### **I. Approval of minutes from April 15, 2021**

Nell moves, Mary 2nd. 5-0 roll call vote. 4/15 minutes approved as amended.

Maggie apologized for getting the agenda posted a little late and promises to do better next time.

### **II. Introductions N/A**

### **III. Public comment N/A**

### **IV. Updates**

**a. Madbury rep?** Hold for Chuck.

**b. Maggie Morrison, OR student intern**

Evy Asherburner Students are difficult to grab now that they're back in school full time.

**c. Maggie Morrison, Communication with Chris Soutter, Durham Economic Development Director**

Maggie: Chris wanted to give the restaurants a heads up about the survey. I incorrectly told her that the survey was going to happen immediately. Nell should inform Chris when the survey is to commence, ask Chris to inform restaurants; find out how she will do that.

Nell: OK

**d. Nell Neal, restaurant survey**

Nell: A Durham IWMAC member has volunteered to do the survey. She can begin May 11, two weeks post second vaccination. She wasn't comfortable with some of the questions we put forward, e.g. asking who was collecting their trash. She was OK with asking about a waste audit and being kept informed. Those are good concluding questions. Nell, Mary & volunteer

will meet to finalize the survey. We'll ask about compost, compostable packaging, compostable products sold to their customers. We could change the hauler question to ask if Durham picks up your trash.

Maggie: If we're regional we should probably do both towns.

**Dean:** Lee doesn't have too many restaurants. [It occurs to me as I type Lee and Durham have supermarkets that kind of include restaurants and produce food waste.]

Jenn: We have Chloe who needs to work full time all summer, interested in qualitative stuff. Going to sites, seeing things, that's more interesting and valuable for her than other things. Part of her work could entail that sort of work. I don't want to slow down the Durham process. It feels like it might be good to have something more comprehensive than Durham is planning.

Nell: Chloe could do it for Durham.

Maggie: I want to respect each town's communication process. It's great if she should do it. Dean will find out if this will be acceptable in Lee.

Dean: I didn't want to delay Durham either. We could save Lee for Chloe.

Maggie: I don't want the wording changed between towns.

Jenn: Durham works on questions they want.

Mary: It doesn't matter if we or Chloe does the survey. I volunteered to help but I'd rather bow out. Let's get together with Chloe to discuss the questions. Would she appreciate one of us going with her to the first restaurant?

Jenn: She can't be at this meeting she's in class. We could have a meeting soon to meet her and ask her what she's comfortable with. She's intrepid and excited about working with us.

Nell: I'll email her the questions we've gathered so far.

Jenn: I'll invite her to the next meeting, cc everybody, and do introductions. I will be out for a couple of weeks with a medical issue.

Mary: Let's talk to our interviewer before committing to handing the project to Chloe.

Nell: Good point Mary. She's new to our committee and I was pleased she's willing to step up.

Jenn: Chloe will work with all of us but then she's deployed to do it.

Maggie: Durham will go down this path with Chloe. Dean will figure out how to include Lee in this survey.

Dean: I'll ask the town administrator for guidance.

Mary: Let's talk to our volunteer before giving the task to Chloe.

Dean: I assume between Chloe and our IWMAC volunteer we will be able to survey both towns. Let's move ahead with that plan and let them organize the surveying however they want to.

Nell: We could move ahead and start the Durham survey with a very short list of questions, and let them know more questions are coming. Opening the door.

Jenn: That could work well.

**e. Others?** N/A

## **V. Contamination: Lessons learned from Community Scale Composting Systems - Dean Rubine**

[https://docs.google.com/presentation/d/1iKUZb45J-CQtAk7uPSEX-PaCPRGhM80HXF7x4VmNB4g/edit#slide=id.gcb9a0b074\\_2\\_0](https://docs.google.com/presentation/d/1iKUZb45J-CQtAk7uPSEX-PaCPRGhM80HXF7x4VmNB4g/edit#slide=id.gcb9a0b074_2_0)

### **What is contamination and how is it handled?**

Contamination is non-organic material in the feedstock or compost.

Policy on what / how much contamination is acceptable.

Preventive measures taken at the generating and hauling stages.

Strategies to detect / remove contamination.

### **Compost Contamination**

#### **→ An Ongoing Threat**

Contaminants make the resulting compost toxic or unattractive.

#### **→ Types of Contaminants**

Physical contaminants include trash in feedstock. Chemical contaminants include plant toxins, especially persistent herbicides..

#### **→ Managing Contaminants**

That includes managing the intake of feedstock, the composting

operation and the final product.

## **Types of Contaminants**

- Visible trash
- Micro-trash (sand, plastic nano-particles)
- Inorganic Material (rocks)
- Large particles (logs)
- Slow Compostables (utensils)
- Plant Toxins / Persistent Herbicides
- Weed Seeds

## **Managing Contamination**

### **Source Management**

Education of and agreements with large feed sources: landscapers, farmers, restaurants.

Policy for and monitoring of drop off of food and yard waste.

### **Process Management**

Assuring 131° F for at least three days breaks down most pathogens, some chemical contaminants.

Adding HCWA - High Carbon Wood Ash at 2-4% of total initial batch volume locks up persistent chemicals, allowing them to degrade.

Procedures to handle spills on-site, separating contaminated material

### **Output Management**

Screening for large particles in finished compost.

Bioassay (Plant growth testing regimen) checks for persistent herbicides and weeds, as well as plant vigor.

## **Green Mountain Compost**

- In 2012, GMC in Vermont sold compost that was plant toxic
- 500 gardens polluted
- Cost of \$1M to handle
- Toxin traced to aminopyralid, persistent herbicide used on hay
- Hay was horse feed
- Horse manure was composted
- Compost process did not break down aminopyralid.

## **Conclusion**

Contaminants will occur in any composting operation and must be managed via policy, monitoring, consistent procedures and product testing.

A failure to prevent contamination puts the entire compost operation at risk.

Questions?

Jenn: Do we need to be concerned with regular pesticides?

Dean: They did have an example of not wanting to accept roses and other preservative-laden commercial flowers. I'm not sure; the bioassays, test plantings, assure the compost works.

## **VI. Continuing to clarify and articulate questions 1-3 - Jennifer Andrews**

Maggie: Are we still in a discerning kind of place with the three questions. I don't want to be guiding the conversation about where we are. What are people thinking?

Dean: I was planning on trying to write my vision of where I'd like to end up and then before trying to fit it into these particular questions

Mary: It's a huge problem and we're making recommendations. The volume comes from the larger kitchens. Not all residents are interested in composting. It would be nice to provide an outlet for them. I think that is the right thing to do. That brings out all sorts of problems of contamination; education. Trying to find a regional solution for the restaurants and schools and

UNH avoiding Agricycle Energy; I'm not sure to go about it. I'd love to have a way for residents to do this.

Dean: One plan is to aim for the big sources, incrementally add residential in the future.

Nell: I like the new wording of the questions. With number 2, need an onsite smaller scale solution; that's a way to increase the diversion of food waste entering the landfill. Question 3 stayed the same mostly. I've been thinking a lot on how to do this brainstorming out of the box thing focusing on residential compost, there are different ways to get started on a smaller scale.

Jenn: My three questions were really three solutions; separate but related. As I'm listening and thinking, focusing on big sources first is super logical for the towns and ORCSD. For UNH it's the dispersed piece that we're struggling with. The breakdown between onsite small scale versus big concentrated is: do we focus on the big sources, relatively uncontaminated or on the dispersed, every dorm and household, individual consumers. I don't know if that's a point of contention between our entities. For UNH we have the bigger source thing figured out; it's the dispersed thing we're struggling with.

If our solution for the bigger stuff that could be piggy backed on. It could make sense. It still feels like two different workstreams. Are we doing both in parallel?

Dean: It's reversed from what I would have imagined, with the towns after the big sources and UNH looking for a solution to dispersed sources.

Maggie: We might be making some assumptions. Large scale generators, UNH is figured out, we're assuming it's the restaurants. We don't even know if they're interested. We don't know who picks up. Kitchen across the board are all the same process. The towns have to figure out by doing this survey research, are the restaurants interested? Then we have to ask if UNH would accept it? Everybody has individual people throwing stuff away, more likely to be contaminated. Would the contamination be helped if the restaurant used certified compostable materials? Some of the utensils have PFAS. What Mary's been saying all along is we would all benefit from education. Those are the themes I'm thinking about. They are sort of parallel, and not. Durham and Lee have to catch up. We'd all benefit from an education campaign.

Mary: I have worked in a restaurant recently that does have compost, recycling and trash. It happened because the owner was willing. Asking a restaurant to sort their waste is huge. There are all sorts of workstations in a restaurant. Coffee station with grounds, trash. These barrels are not small. It's so much easier for a restaurant not to do this; have everything go in one bin. All the wrappers and labels...

Maggie: That's why I want to ask the restaurants if they're being charged by pickup or by ton? They are driven by the bottom line completely. Can a dining hall model it for a cafeteria and restaurants?

Mary: There has to be a financial incentive for restaurants. Equally the owner has to be willing.

Jenn: We're being brought back to doing data collection. Would you be willing to be part of a waste audit? We could get volunteers to do some digging through trash. There's quantitative stuff of volume, cost, contamination. Then there is qualitative stuff: knowledge, motivation and skills. I would love to work to put together a survey or some follow-up methods for getting some of this data and putting it all together in a way we can bring to our respective organizations and say here's where we are, here's where we see overlap, here's where we see opportunity.

Mary: We could offer composting and find there are no takers. We need data.

Maggie: If all the restaurants use Waste Management, could we pull out food waste to Durham's benefit and the restaurant's benefit?

Jenn: From the data we can figure out where to prioritize our efforts.

Mary: Do the businesses talk among themselves about what they do with their waste?

Maggie: I would hope so, but in this culture we sweep waste under the rug. To my knowledge Lee doesn't have any business roundtable participation. Lee has more chains.

Mary: Trash pickup is an expense for all businesses. Where is it in relation to their size? 10% versus 2% versus 1/2? How much of an impact will changing have? It has to come down to them wanting to do that.

Jenn: It sounds like there's some agreement that there are multiple places to focus, all important in different ways. We agree that we want to get more information. What we said was Durham IWMAC will figure out whether they'll do a mini survey first or one big one with Chloe, in Lee, in Durham for Oyster River, aggregate existing UNH data. Focusing on that piece for the next meeting or two makes good sense. We'll come back to bigger picture questions after.

MM: It will be interesting for Oyster River because we just started to be back in person. Let's hope we can get accurate data.

Dean: Instead of hoping restaurants are willing; in Massachusetts the law requires restaurants to participate. Can Durham just decree that?

Jenn: They probably need enabling legislation from the state.

Nell: This has been a great conversation. We've just come back around to realizing we need to know the data before we can move forward. We had the cart ahead of the horse.

Maggie: Dean, is there any value for us to circle back to Mike Nork, NHDES? Wouldn't it be nice if he could help getting the state to make rules?

Dean: We promised to keep Mike in the loop so we should keep him informed, which I'll do. I don't think he has much sway with the legislature.

Maggie: Maybe if he knew there was interest; wouldn't it be nice if there was a law?

Jenn: We should lobby -- that's a fourth direction.

Dean: Talk to our legislator friends.

Maggie: Rep Spang is our neighbor.

Mary: It should definitely be one of our recommendations to work on legislation.

Jenn: I'll resend Chloe's research proposal. Let's continue brainstorming survey questions.

Nell: I'll send the questions around. Some of the answers may be available through Durham Public Works.

**VII. Next meeting date:**

Thursday 5/20/2021 3 pm

**VIII. New Business N/A**

**IX. Adjourn 5:05 pm**

Respectively submitted,

Dean Rubine