

Stakeholder Working Group:
Addressing Hunger and Food Waste in Maine
Senator George J. Mitchell Center for Sustainability Solutions
University of Maine, Orono
August 7, 2017

Meeting Synthesis Notes

Working Group Goals:

1. To collect existing data to sketch Maine's food waste landscape and its associated costs
2. To evaluate policies to reduce food waste - with a particular emphasis on their feasibility and transformative potential in Maine

Meeting Goals:

1. Identify primary generators and recipients of food waste to begin the process of: a) mapping Maine's food waste landscape; and b) identifying data gaps
3. Identify several potential policy solutions that balance or maximize transformative potential and feasibility for further investigation (e.g. estimated costs and benefits, tradeoffs, applications in other states, etc)

Attendance:

See Appendix I for a full list of attendees

Please note: many who were invited were not able to attend, including representatives from gleaning organizations, waste haulers and food distributors. We have also identified other representatives who will be invited to comment on this document and join us moving forward, including food service companies and food safety experts/inspectors.

Mitchell Center Mission:

Serving as a leader and valued partner in understanding and solving societal problems related to the growing challenge of improving human well-being while protecting the environment.

Mitchell Center Strategy:

Using innovative approaches to address the intersecting environmental, social, and economic dimensions of sustainability challenges, including issues involving energy, forestry, water resources, urbanization, agriculture, fisheries, waste and climate change.

Materials Management Research Group:

An interdisciplinary research group dedicated to working with diverse stakeholders to explore more sustainable solutions for materials and waste management in Maine.

Activity One: Problem and Barrier Definition

Goal: To work as a group to learn from each other and identify areas of consensus around: 1) The largest problems associated with food waste in Maine; and 2) Barriers that impede efforts to eliminate, reduce, redistribute or utilize wasted food. Stakeholders were seated at four different tables. Seating assignments were intended to ensure that each table had diverse representation (e.g. one organics processor at each table, one state legislator at each table, one researcher, one representative of a food donation/hunger relief organization, etc). Notes from each table can be found in Appendix II.

Summary of Themes: These themes emerged through an inductive process designed to identify key problems and barriers.

Key PROBLEMS associated with food waste in Maine:

- Inefficiency/Waste: Senseless/costly to waste - lost money, resources, energy, water and nutrients. “It is not the Maine way”
- Hunger/Food Insecurity/Inequality: There are many food insecure families and children in Maine. There are missed opportunities to address this and prevent food waste
- Environmental Issues/Climate Change: Wasted food turns environmental goods (nutrition) into environmental bads (pollution like leachate and methane) which results in long-term costs. Current patterns are contrary to the waste hierarchy.

KEY barriers preventing food waste reduction/recovery in Maine:

- Lack of Capacity/Infrastructure: Although several participants noted that Maine already has more organic waste processing infrastructure in place than most states with prohibitions on landfilling organics did at the time of implementation, capacity is an issue, particularly for collection and preservation, food donation networks and hauling. One key question is whether it makes sense to build the capacity before the commitment or to make the commitment and trust that capacity will expand.
- Short Term Costs: Implementation of food waste prevention/recovery/redistribution/processing infrastructure requires short term expenditures (labor, monetary investments, thought/hard work). Despite the potential for long-term payoff, short term costs often seem prohibitive.
- Lack of Incentives: Given the associated short term costs, there are very few incentives for businesses and organizations to change process. It is currently cheap to landfill; households, unless they bear direct costs (e.g. unit based pricing), are not incentivized to reduce waste - particularly if organic waste collection requires separate pick up. One participant noted that some incentives are skewed, “a candy manufacturer could get tax credit for donating candy but a farmer donating gleaned food does not”

- Policy Uncertainty/Leadership/Planning: There are many different agencies that regulate food and waste and there are highly inconsistent/unregulated policies for date labelling. This creates confusion. There are also many different organizations working on this issue, but they are not well coordinated. Many noted that it is difficult to justify investments without knowing what the future policy landscape will look like and that it would be useful to have clearer policies to guide best practices and processes. There are also restrictive policies (against gleaning, ordinances that prohibit composting) that present barriers.
- Transportation/Geography: Maine's geographical landscape and uneven population densities present challenges for transportation of organic materials. Relating back to the issue of capacity and infrastructure, investments would be required to establish areas for consolidation, storage and redistribution. In some cases it might be advantageous for organics processing to happen locally.
- Safety and Liability: A great deal of unwanted/unsellable food is still safe for human consumption or for domestic animals. However, unclear food labels and uncertainty about safety present a significant barrier. This is particularly true for potential food donors who worry about liability.
- Awareness/Education/Messaging: Many Mainers still aren't aware of how much food we throw away and the associated social, economic and environmental costs. Much of this has to do with misconceptions about food safety. Many people who do understand don't know what to do about the problem (e.g., composting, reducing food waste, etc). There is also a widespread assumption that preventing food waste will be costly (despite long-term benefits). At the institutional level there are also social norms which encourage over-production/consumption that could be addressed with education.
- Sector specific needs: There are a range of sector-specific barriers:
 - Producers: need strong markets, good transport, gleaners and support for on-farm composting to reduce food waste. They also need good access to compost outputs and to channels for animal feed.
 - Retailers/restaurants/convenience stores/institutions: need better data/inventory management and protocols, strong donation and consumer education programs, and committed leadership.
 - Hunger Relief Organizations: need good facilities, staff and processes for collecting, consolidating, storing, processing and redistributing donations particularly since supply and demand don't always match up.
 - Organic waste processors: need consistent supply to justify investment as well as good training programs for source generators to reduce the risk of contamination
 - Waste haulers: need new equipment/ pricing formulas to account for separation
 - Food safety: safety inspectors need clear policy and guidance to ensure retailers are maximizing food donations and are operating safely.

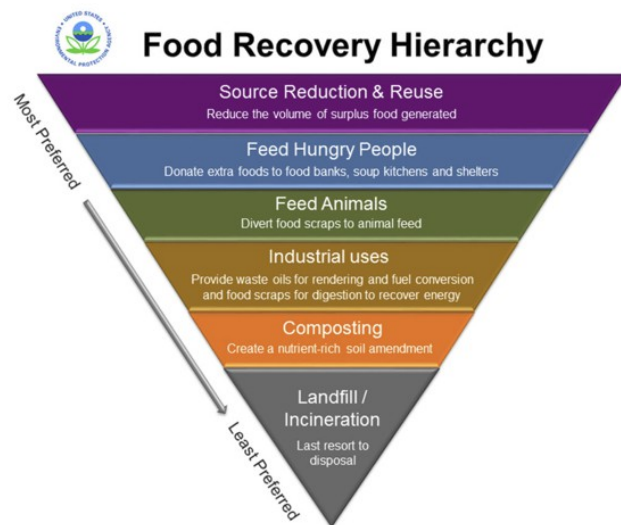
Activity Two: Food Waste Generation & Recovery Processes

Synopsis: Travis Wagner (University of Southern Maine) and Travis Blackmer (University of Maine) presented a PowerPoint that begins to map the sources of food waste as well as routes for redistribution/recovery. Stakeholders made suggestions for missing pieces of the diagram which Travis and Travis have incorporated in an updated PowerPoint (APPENDIX III).

Next, participants were asked to identify sources of data that might help the team to begin to quantify food waste in Maine. These results are being aggregated by Travis Blackmer and Travis Wagner for discussion in our next working group call (TBD).

Maine's Food Waste Flow

- Draft conceptual map
- Based on hierarchy
 - Generation
 - Recovery
 - Compost
 - **Disposal**



Activity Three: Consideration of Possible Policy Options

Goal: To review broad policy directions intended to reduce food waste and generate consensus around which of these policies are 1) most transformational; 2) most feasible; and 3) of lowest priority. Participants discussed policies in small groups and then “sticker voted” individually.

These broad policy directions were taken from Harvard Food Law Policy Center’s Food Waste Toolkit. Each table received handouts with descriptions of each policy theme (APPENDIX IV), which were:

1. Liability Protection for Food Donations
2. Tax Incentives for Food Donation
3. Clarify Date Labeling to Facilitate Food Donation
4. Improve Food Safety Standards to Facilitate Food Donations
5. Food Waste Reduction in K-12 Schools
6. Clarify Policy to Encourage Feeding Food Scraps to Livestock
7. Organic Waste Bans and Waste Recycling Laws
8. Government Support for Food Waste Reduction

Tables were given time to discuss these policy directions and the associated policy suggestions (APPENDIX IV). Then, individuals were given three different colored stickers. They were asked to place their orange sticker on the policy poster that they felt had the most transformative potential (in other words, those that would do the most to reduce food waste). Green stickers were utilized to indicate those policies that stakeholders felt were most feasible (politically viable, publically acceptable, low cost). Finally, pink stickers were used to indicate those policies that stakeholders felt were lowest priority (either because they lacked transformative potential or were considered unfeasible in Maine).

RESULTS:

As Figure 1 reveals, clear areas of consensus emerged.

- *Organic Waste Bans and Waste Recycling Laws* were overwhelmingly seen as the most transformative policy options
- *Clarify Policy to Encourage Feeding Food Scraps to Livestock* was seen as the lowest priority. This is in part because many felt that people in Maine were already doing this.

Perception of which policies are most feasible were more evenly distributed between 1) *Food Waste Reduction in K12 Schools* - which received 13 green stickers and 2) A grouping of policies (advocated by participants) which centered on food waste donation including *Liability Protections*, *Tax Incentives* and *Food Safety for Donations* - which together received 14 stickers.

Figure I: Distribution of Stickers



Participants reasoned that work on standardizing and clarifying policy on date labelling were not high priority given work on this issue at the national level.

Participants also reasoned that Government Support for Food Waste Reduction would be required for nearly any policy.

Based on a large group discussion participants decided to formulate three groups for afternoon sessions and ongoing working groups centered on:

1. Reducing Food Waste in K12 Schools
2. Organic Waste Bans and Waste Recycling Laws
3. Policy to Encourage Food Donations (liability protections, safety guidance, tax incentives)

Although participants were given the option to add a policy not represented, no one added a new policy.

Activity Four: Small Group Policy Discussions

Goal: To work in small groups to discuss the costs, benefits, transformational capacity and feasibility of each policy approach.

1. Notes on Landfill Bans and Recycling Laws:

Option a: Recycling Laws

- **Benefits:**
 - Highly effective and transformative
 - Economic savings and growth potential from new industries built on what was being wasted, particularly as the costs of waste disposal go up over time
 - Maine already has more organics processing capacity than other states at the time of their landfill ban implementation
 - Could leverage state and federal investments in technological assistance, infrastructure and capacity
 - In long run (and sometimes short run) organics processing is cheaper than disposal
 - DEP reports (in response to a query from Rep. Zeigler) adequate staffing to regulate this roll out, if implemented over time; not sure of possible staffing impacts to Department of Agriculture, Conservation & Forestry, as they monitor farm based composting operations and develop Compost Management Plans for the farms
- **Barriers/Costs**
 - Bans unpopular - better to call it something else or use incentives
 - Would require/benefit from having food scrap consolidation centers/points given the uneven generation of wastes and processing/composting capacity in the south and northern parts of the state
 - Transportation costs might be prohibitive for some areas without increased capacity or consolidation sites.
 - Haulers would need to be on board and potentially change their cost estimating/billing formulas and collection technologies/routes to accommodate separation of organics
 - Would likely require investments in education and outreach.
 - May take some time to "roll out" these systems

Option b: Small Farm Processing

- **Benefits:**
 - Farms processing less than 60 cubic yards of food waste/month do not need a permit from DEP, but do need to follow Department of Agriculture, Conservation & Forestry '[Best Management Practices](#)' for composting.
 - Addresses issues associated with transport.
 - Reduces costs of transport and fertilizer use
 - Recognizes that one size does not fit all
 - Keeps unused organics locally, for local benefit

- Costs/Barriers:
 - May not result in adequate capacity to process enough organic waste
 - Potential problems with compost quality (odor, quality, vermin, safety) without proper technical assistance/oversight
 - Lack of engagement/labor/\$ to implement on farms
 - Doesn't take advantage of economies of scale
 - Development of markets necessary for compost and by-products of anaerobic digestion which will be created

Option c: Unit-Based Pricing

- Benefits
 - Incentive-based rather than mandatory - more acceptable
 - Can decrease amount of trash while increasing recyclables
- Costs/Barriers
 - Uses a negative stick
 - Potential abuses and unwanted roadside dumping of waste
 - unpopular /controversial
 - Less effective (voluntary) than ban on landfilling

Option d: Increased landfill fees with the intent of funding grant programs

- Benefits
 - Consistent with waste hierarchy
 - Fees generated can be used to fund recycling and compost infrastructure
- Costs/Barriers
 - Unpopular with landfills (who stand to lose) and municipalities (who don't want to have the state take money to give it back to them)

Figure II: Discussion group for *Organic Waste Bans and Waste Recycling Laws*



2. Notes on Waste Reduction in K12 Schools:

Benefits:

- A number! 75,000 lb food waste produced/2000 students each year - this is among the top 3 expenses because it is expensive to dispose (not to mention buying the food in the first place). This number is for ME but similar elsewhere across the country in the absence of programs
- These interventions focus higher on the hierarchy than management of waste
- There are educational benefits in addition to waste reduction and nutritional benefits of tackling this issue - these programs can be integrated into the curriculum at a number of levels
- Reduces cost of disposal and food purchase
- Grown-ups also educated in the process - scale of the problem and solutions
- Environmental benefits
- Reduced food insecurity

Costs:

- Cost in local control if centralized or mandated
- Videos, educational materials, success stories would be needed to facilitate the spread of effective programs (raised lots of good ideas about how, including kids making videos about food waste and insecurity as service learning projects; development of a clearinghouse for curriculum materials (such as produced by Ecomaine) and profiles of successful programs; funding for developers of effective materials and programs to visit interested schools)
- Requires enthusiasm, extra work, and to overcome resistance to change/nay-sayers. Ultimately the measure of a successful program is one where the person who spearheaded it could leave and the program continues. So it would be most beneficial if the State Department of Education supported these activities and if school/district administration would maintain the enthusiasm and commit to funding and maintaining the project(s) - this would require some kind of campaign to ensure they understand the importance and make it easy.
- Folks/experts in government to produce accurate and clear guidance on what to do and how (develop best practices guidance, and make it widely available and easy to find - e.g. see Maine School Garden Network at <http://www.msgn.org>), and provide help when things get difficult.
- Pilot programs to demonstrate feasibility under different constraints relevant here
- Political cost of pushing this (scheduling is difficult and contentious at a local level - school districts are already grappling with a lot of mandates and competing interests).
- Waste analyses need to be done to show where purchasing and food choices can be improved (USDA has good guidance on these analyses)
- Curriculum change to incorporate food waste related activities in academic programming requires work and support - differences in the flexibility of the curriculum at the primary and middle school levels than in high school (some resources exist. See, for example Maine Agriculture in the Classroom at www.agclassroom.org/me/)

- Feasibility:
 - These initiatives might not need legislation on the specifics, but rather support for programs and people who can clarify the rules, provide guidelines and promote best practices
 - Should be feasible to provide support if the issue is made a high priority (clear message would need to be developed to increase the profile of the issue in communities)
 - Communication strategy and a central clearinghouse of information needed plus contacts who can provide support when barriers need to be overcome.
 - Several different guidelines and conflicting (and old) information currently creating confusion need to be reconciled
 - Harvard and VT have great guidelines - so don't need to reinvent the wheel - just need all interested arms of government (health education environment) to give the same message and make the guidelines more usable (clear, concise, understandable)

Figure III: Discussion Group for Waste Reduction in K12 Schools



3. Notes on Policies to Facilitate Food Donation:

While the group was tasked with discussing three separate policies surrounding food donation, the group ultimately focused on policy that addressed state guidance for safety and food donations.

Our process for arriving at this decision was as follows:

- Prior to discussing the policies, Representative Tucker gave the group background information on LD 1534 and explained how it arrived at the ENR committee.
- We then discussed the idea of “donation,” and decided to call it “food donation or diversion.” The reason for this is because some participants felt “donation” did not adequately represent all of the costs associated with the donation.
- Next, using the whiteboard, we outlined each policy and discussed what the policy did/did not address.
- As a team, we determined that state guidance on safety and food donations was a critical first step before discussing tax incentives or liability. The group felt that tax incentives and liability protection are both important issues that would come after state guidance.
- We also discussed that this guidance should be provided for food given to humans and livestock.
- Finally, in relation to the tax credit, participants thought that taxpayers should have the option to take either a credit or deduction, depending on which was more beneficial.

Benefits:

- Safely feed hungry people
- Eliminate uncertainty and confusion for donor and recipient
- Sets guidelines for those interested in donation - promoting broader participation.
- Improves the quality of food being redistributed (more, better food)
- Avoids political opposition, especially compared to policies that involve taxation and liability protection.
- Provides incentive or opportunity to centralize high quality information for multiple sources to draw upon.
- Legitimizes information if it’s been vetted and supported by recognized sources (USDA, EPA, etc.)

Costs:

- Training staff at multiple levels (restaurants, grocery stores, health inspectors, program administrators)
- Overseeing policy at the state level comes with costs
- Compiling data (and determining who collects and processes that data, and to what end)
- Potential challenges involved with companies/organizations that rely on seasonal workers due to training time. For restaurants, high turnover could be an issue with training for food donation safety.

- Information is already available at some levels, but for smaller companies/organizations without the staffing and resources, the information might not be shared effectively.
- Need for further training and support to equalize access to information.
- What about donated food that goes to feed livestock? Need to make information more readily available.
- Tourism centers are huge, inconsistent generators of wasted food that could potentially be donated.
- Organizations who are composting should also be made aware of donation guidelines so they can advocate for redistribution of food over compost (perfectly good food is getting to farms for composting instead of being re-served)
- Need to think about what this process is called - donations vs. redistribution.

Feasibility:

- Some data already exists - being tracked by stores, food banks, etc.
- Someone or some agency needs to take ownership over this (perhaps DACF since they impact food producers/retailers)
- What committee will oversee this in the legislature? Question of appropriations. One participant questioned whether it would be Labor, Commerce, Research & Economic Development or Agriculture.
- Building upon existing resources (like ServSafe?) that are already producing resources like this - they are not currently available to the broader public, but potentially could be expanded.
- Need for a best-practice manual rather than a case study approach.
- Health inspectors might not be the best approach for implementation. There are few of them and not always regularly seen.

Figure IV: Discussion Group for Policy to Facilitate Food Donation



Next Steps and Meeting Outcomes

Outcomes:

- Stakeholder-derived consensus on problems, barriers and potential solutions
- Preliminary waste flow estimates and sources for additional data
- Identification of additional stakeholders for involvement in the working group including health inspectors and representatives from other affected governmental agencies
- Networking opportunities that can lead to future collaborations to reduce food waste

Next Steps:

- Research team sends meeting notes to the entire working group for comment along with a list of the policy working groups and contact information
- Working group comments on meeting notes
- Working group representatives present meeting notes to the ENR committee with the intent of soliciting input on what data is needed to evaluate each policy option.