

Materials Management Action Plan 2016 & Beyond

Purpose: To take the knowledge that has been gained through engaging with stakeholders to:

- i) work with stakeholders to assist and support pilot projects
- ii) facilitate and expand information sharing
- iii) work to develop knowledge-based decision tools
- iv) contribute to policy research

These planned projects vary in cost, technical expertise, required buy-in, administrative needs, and anticipated impact. The objective is to meet the goals of stakeholders to improve knowledge, increase diversion, understand best practices, and share information. The following is briefly outlined for each project

- Objective
- Plan
- Participants
- Needs
- Outcomes
- Timeline

The Mitchell Center desires to help drive these activities, but cannot do it alone. These projects will require expertise and action from industry experts, municipalities, public and private entities. We hope for increased state-level participation moving forward. Some may require outside funding to accomplish as well.

1. Policy Review

Objective: To aid policy makers and stakeholders with a review of the many materials and solid waste policies that are available and to gather information on how the stakeholders in Maine view these various policies

Plan: To analyze Maine, New England, other US States, Canadian Provinces, and European Countries' policies for managing materials and to consolidate these policies in an efficient and readable manner. To solicit views of opposition or support from stakeholders to help create understanding of which policies are more possible and/or desirable, as well as crafting new policies.

Participants: Cindy Isenhour, with support from the Mitchell Center MM Research Team, will conduct the policy review and the MC Team will call upon the 200+ engaged stakeholders to participate in the policy survey.

Needs: Information on the many various types of materials and solid waste policies and stakeholder participation on the survey

Outcomes: To make the vast sea of policy options accessible and to have a clear view of stakeholder opinions to help guide the any new policies created.

Timeline: Initial survey results for delivery October 13th. Draft of Policy Review for November 17th.

2. Organics Management

- a. Investigate Co-Digestion of organic materials (food scraps, leaf/yard, manure, wastewater sludge) in Maine

Objective: To determine the potential capacity needs and required infrastructure to manage the organic materials currently in the waste stream. To analyze the different collection and management strategies available to communities. To evaluate what role methods, such as composting, mixed waste systems, and technologies, such as co-digestion of organic waste with existing wastewater treatment facilities, are economically and politically viable options available for managing the organic waste stream in Maine.

Plan: To apply for seed funding to investigate organics management in Maine offered by the University of Maine System Research Reinvestment Fund. A direct stipulation of this funding is go after a larger grant as a part of the work. The work that is carried out must have the ability to be funded at higher levels for further action beyond the initial scope.

Participants: Private partners, the MC Research team, University of Maine – Presque Isle (UMPI), University of Southern Maine (USM), wastewater treatment plant operators, municipalities, solid waste professionals, pertinent state officials, and two graduate students to investigate the process, costs, and ramifications of managing the organic waste stream.

Needs: Individuals with expertise in economic development, life-cycle analysis, solid waste industry partners (haulers, composters, town officials, etc.) and individuals with expertise in organic processes including wastewater treatment plant officials. Pilot licensing from the state.

Outcomes: A report detailing the future capacity needs of the state of Maine to manage the organics portion of the waste stream and proposals as to how to meet those needs. This report would include a geo-spatial analysis of organic waste generated, an analysis of alternative models for collection and processing, and what role public and commercial composting operations and technological processes like co-digestion could play as we seek to leverage existing infrastructure to divert organics from the landfills.

Timeline: Grant applied for October 1, 2015. Research to be carried out in 2016/2017.

- b. Organic materials pilot projects

Objective: To gather information and data on organics diversion programs to inform individual towns and policy makers of the opportunities, tradeoffs, operational challenges, and logistics associated with the removal of organics from the waste stream.

Plan: To work with and help support/facilitate a number of (2-6) organic materials (food scraps, leaf/yard, manure, wwtp sludge) diversion projects that are carried out on different scales to provide cooperative districts and municipalities with more information on what diverting organics would entail. This project would include partners with background and expertise advising the projects along with the communities participating in the project.

Participants: Participants are listed below and would include two different collection schemes and service populations

- 1-3 larger towns (greater than 8,000) to do curbside composting collection
- 1-3 regional efforts and smaller communities (servicing under 10,000) to do drop off food scraps composting (either for on-site management and for consolidation and transportation to separate facility for management)

Needs: Willing partners (towns/cities, third-party operators, institutions, haulers, diversion facilities, etc.) committed to the end objective that will help execute planning along with the project team. It must be determined what level of costs towns are willing to bear and what level of funding is required for the project. This could include seeking funding to help with subscription fees, tip fees, operational costs (equipment and labor), or assistance with building required infrastructure.

Outcomes: To have accurate data on the impacts of diverting organics (tonnages, tipping fee displacement, environmental impacts, operational and administrative costs), to gain first-hand experience on best practices, and to share successes and challenges of diverting organics.

Timeline: Have 2-6 communities/regional areas ready to go for July 1, 2016. Share preliminary results in April 2017 (MRRRA conference?) and larger report for 1 calendar year by Dec 2017.

MMA Meeting Notes:

- We Compost It/organization collection and management
- Quality differences to be expected between subscription and town-wide
- Pilot- Metric definitions, data collection, and standardized methods
- Clearing house of best practices
- Food waste management plus farm & agricultural community
- Institutional and non-profit grants
- Is there a policy driver?
- Organics management for MRC communities issue, desired use of organics in Fiberight, may not be best fit prior to certainty of future

3. Educational Tools

a. Community Educational Program

Objective: To create new tools, platforms, and methods of sharing for solid waste and materials management education and to utilize these tools to see if closing informational gaps can lead to better outcomes.

Plan: Create new materials, strategize how to distribute the information, and evaluate the results. Several different communities with vastly different materials management practices should be included and piloted. This should include materials for mailers, public meetings, social media outreach, town emails, town websites, and private sector cooperation/contribution. We will attempt to revisit and update past materials, such as Maine Recycles, in this effort.

- Small, medium, & large community
- Online platform on “how to dispose” with mailers and other outreach actions
 - Social media roll out
 - A phone/tablet app utilizing GPS technology
- Track changes in utilization for; universal waste, hazardous waste, recycling (pre-work on how much recycling in waste stream), composting, per-capita waste generation

Participants: Several municipalities and interested and engaged stakeholders with academic, advocacy, and outreach backgrounds as well as other solid waste professionals with a passion for sharing information. Groups like Sustain Mid-Maine, MRRRA Education Committee, and other engaged organizations are hopeful participants (maybe a program like RecycleBank)

Needs: Detailed planning and innovative ideas as to how to distribute information in cost-effective ways that reaches the most citizens. Towns that are willing to help facilitate the information sharing through the various platforms they have available. A review of what materials are universally collected (hazardous waste, sorted vs. unsorted recycling, etc.) and a plan for how to customize based on offerings.

Outcomes: To have calculated metrics that show the effectiveness of the methods undertaken on the many streams of materials for the communities and a cost-benefit analysis when combined with administrative and distribution costs.

Timeline: First meeting by February of 2016 with goal of Educational rollout in late 2016/early 2017.

b. Online Platform for Materials Management in Maine

Objective: To create a user-friendly online platform that catalogs “How to” and “where to” dispose of materials throughout the state.

Plan: To use the vast network of stakeholders to help map all the odd, lesser-known, or innovative places that accept hard-to-manage materials across the state.

Participants: Any and all stakeholders with little inconvenience. A web developer.

Needs: To build the online platform and host it. A vast database of the facilities and entities that take the various materials. A plan for maintenance of the website for the future.

Outcomes: An easy-to-use website where information is freely shared about where to get rid of materials.

Timeline: Database creation ASAP. Web developer contracted with by summer 2016 with website launched by December 31, 2016

MMA Meeting Notes:

- Committee- What is the problem?
- Costs-data driver web, maintenance
 - Website development and hosting can be prohibitively expensive

- Tie in training, disposal cost, behavior change
- Other types of information
- Education- outcomes/effective?
- Coordinator/ cooperate with Maine DEP
- Education may not do much
 - Platform may be more likely to have impact

4. Promoting Reuse in Maine

a. Dr. Cindy Isenhour's Reuse Economy Research Team

Objective: To measure the value of the reuse economy in the state of Maine, utilizing that data to inform the initiation and expansion of reuse policies and programs in support of the waste hierarchy.

Plan: To coordinate with Cindy Isenhour's Reuse Economy project to help promote the expansion and promotion of reuse in Maine.

Outcomes: A detailed report on the economic, environmental, social, and cultural impacts of the reuse economy in Maine with a replicable methodology.

Timeline: Cindy's team is submitting a grant application in December 2015 for a project to be carried out in 2016/2017.

b. Increasing Reuse in Maine (# based on interest)

Objective: To help expand/create reuse programs in Maine.

Plan: To coordinate with Cindy Isenhour's Reuse Economy project to help promote the expansion of reuse in Maine. This would include partnering with municipalities to promote their existing programs through new methods or helping to create a new program in areas where reuse is less prevalent.

- Digital map/database/guide of reuse economy activity (linked to 5b)
- "Swap shops" or "Too Good To Throw" shops in a rural communities attached to a transfer stations
- Mid-sized endeavors to facilitate the exchange of items
- Charity based reuse operations creation/expansion
- (if willing) South Portland's new Transfer Station and Reuse Shop

Participants: Municipalities and regional collaborations along with private, public, and non-profit organizations that focus on reuse will be solicited. The number of participants only has the bounds of what can be administered.

Needs: To have towns and entities willing to work with the project team to utilize methods of capturing the level of reuse in quantifiable ways. Identifying these methods would be integral to this project to have metrics to show results.

Outcomes: To have a “manual” for what a new reuse program entails for a community. To have some quantifiable metrics as to the costs and level of diversion that reuse programs create and to what extent it is a benefit to the citizens of the local area.

Timeline: Increasing/expanding reuse programs to be ongoing in 2016 & 2017

c. Maximize textile collection in Maine

Objective: To increase the level of materials diversion by capitalizing on an easy and free technique for communities to remove textiles, primarily clothing, from the waste stream (4.26% of waste stream from 2011 characterization study).

Plan: To map where current donation boxes are (Planet Aid, Goodwill, etc.) and to assess their reach. To reach out to as many schools and communities as possible and coordinate with a textile recycling company to provide donation hubs in underserved communities. Potentially utilize school systems to serve as donation hubs.

Participants: Any and all willing communities/schools as well as a textile recycling company (either for or not-for profit). The support of the Maine Principals’ Association would be helpful.

Needs: Information on current textile donation sites, contact lists for schools, willing textile recycling partner(s), and materials on benefits of diverting textiles.

Outcomes: To have a measurable level of textiles diverted through this project and to increase awareness in schools and communities about a lesser-known method of waste stream reduction.

Timeline: Begin immediately. Have partner collection entity by March 2016. Look to expand collection in communities (primarily in school with a target of one specific age group, either Elementary, Middle School or High Schools and not all) in state by August 2016 for next school year.

MMA Meeting Notes:

- Mass DEP program
- Town-wide yard sales
- Quantify uncle henry impacts
- Consistent approach
- Local web/exchange
- Multiple use/quality/separation

5. Data

Objective: To evaluate the current data that is collected for the state and to make recommendations as to how to improve the quality and quantity of the data available. To better understand what the purpose of data on

materials and solid waste is, where it comes from, why it is collected, and whether or not there is sufficient information currently.

Plan: To assemble a team to work with the Department of Environmental Protection to assess where there are gaps in knowledge of what actual waste and diversion occurs and what can be done to alleviate the gaps or plan for how to create new methods of tracking important information. This may include one or more of the following: 1) comparing Maine's data practices to national level (EPA) or other state definitions; 2) recommendations for new platforms and the a) utilization of real-time data software to reduce the need for frequent statutory reporting; and/or b) creation of new tools to help make the evaluation practices as reliable as possible 3) adjustments of current measurements metrics; 4) adding or reviewing definitions of waste streams.

Participants: Interested stakeholders along with individuals that collect information. Should attempt to have a representative from each of the following; DEP, haulers, municipal officials, regional facilities, landfill operators, recycling brokers, organics diverters.

Needs: To have buy-in (from stakeholders, state officials, municipalities, reporters of data, etc.) prior to formulating a plan so that the team knows their recommendations will have weight with policy makers. To be a representative group of stakeholders. To be innovative.

Outcomes: To assess the current data the state collects and determine if new/different data should be considered. If the latter, the team will create a new plan for data management that increases information quality, accuracy, and/or allows for intermediate updates to be provided to interested parties in real time (monthly, quarterly, bi-annual, annual as determined appropriate) all in an effort to reduce the year to year work required by the DEP and municipalities to gather, consolidate, and report on the information.

Timeline: First meeting January 2016. To have a completed report of recommendations by January 2017

MMA Meeting Notes:

- Data- Reconcile with DEP
- More resources are needed to help data be accurate

Potential future endeavor:

Integrated Solid Waste Management Plans (ISWMPs) for communities/regions

Timeline: 2017 and beyond