

# Maine Climate Council Materials Management Task Force

March 22, 2024

12:30 PM – 3:30 PM

Hybrid meeting held in person at #118 Marquardt Building, 32 Blossom Lane, Augusta, ME 0433 and via Zoom (not recorded)

Please refer to [MMTF webpage](#) for additional information about the Task Force.

Present:

- Co-Chair: Melanie Loyzim, Maine Department of Environmental Protection
- Co-Chair: Cynthia Eisenhower, UMaine/Sen. George J. Mitchell Center for Sustainability Solutions (zoom)
- Facilitator: David Plumb, Consensus Building Institute
- Staff: Megan Mansfield-Pryor and Molly Siegal, Maine Governor's Office of Policy Innovation and the Future,
- Invited Guests: Stacy Knapp, Maine Department of Environmental Protection, Nathan Robbins, Maine Department of Environmental Protection, Katherine Blauvelt, Industrious Labs
- MMTF Members in attendance:
  - Travis Peaslee, Lewiston Auburn Water Pollution Control Authority
  - Carla Hopkins, Maine Department of Environmental Protection
  - Alex Zipparo, Island Institute
  - Alison McKellar, Town of Camden Selectboard
  - Mark Draper, Aroostook Waste Solutions
  - Mike Carroll, Municipal Review Committee
  - Vanessa Berry, Natural Resources Council of Maine
  - Jamie Garvin, ecomaine
  - Heather Steeves, Goodwill Northern New England
  - Lane Gould, Maine Bureau of General Services (zoom)
  - Abbie Webb, Casella Waste Systems (zoom)
  - Teddy Lyman, Maine Department of Education (zoom)
  - Wesley Ingwerson, U.S. EPA Office of Research and Development (zoom)
  - Abbie Webb, Casella Waste Systems (zoom)
  - Kate Tomkins, Chickadee Compost (zoom)
  - Dan Wojciechowski, IDEXX Laboratories (zoom)
  - Lane Gould, Maine Bureau of General Services (zoom)
  - Josh Bossin, Maine GearShare (zoom)
  - Shaina Cohen, Northeast Waste Management Officials' Association (zoom)
  - Juliana Beecher, Oak Ridge Institute for Science and Education (ORISE) Fellow (zoom)

- Ben Chesler, Roux Institute (zoom)
- Susanne Lee, UMaine/Sen. George J. Mitchell Center for Sustainability Solutions (zoom)
- Reed Miller, UMaine/Sen. George J. Mitchell Center for Sustainability Solutions (zoom)

#### Meeting Minutes

- 12:30p.m. to 12:10pm: Introductions of Task Force Members and Guests, Acceptance of February Meeting Minutes
- 12:10-2:00pm: Presentations and Q&A on SIT Inventory, Maine WWTP, Incineration, and Landfill Facilities:

#### State Inventory Tool (SIT), Stacy Knapp from Maie DEP

- Stacy Knapp walked through the municipal solid waste module in the State Inventory Tool, emissions from waste including landfills and wastewater.
- Waste is considered a "source category" as opposed to an economic sector such as transportation. Economic sectors are all within the energy category.
- Waste is 3% of our total GHG emissions in Maine, that includes biogenic emissions.
- Wastewater module: almost 100% based on population. We added pulp & paper data starting last year.
- Our emissions inventory does not include life cycle emissions, we are working on a consumption-based inventory with EPA. All the emissions we count occur within the state, with the exception of electricity emissions generated out of state. The consumption-based inventory will incorporate emissions from products that are produced out of state.

#### Discussion

- Camden- upgrade (wastewater treatment plant) has caused electricity costs to skyrocket but town should be seeing savings in other areas.
- Question about the transportation impact of waste. Waste transporters aren't reporting miles driven so we don't have a lot of information.
- National data shows that emissions from landfills are a much greater proportion of emissions- why are we only seeing 3%? This is an area that we are still trying to figure out. NASA has been looking at satellite data and it comes out very different from current methods. We know about this, EPA knows it, and we are trying to improve how we measure emissions from landfills.

#### LAWPCA Anaerobic Digestion, Travis Peaslee

- Overview of anaerobic digestion system used to reduce volume and improve quality of biosolids for land application.
  - 42 million cubic feet of biogas/year
  - Excess gas gets stored or flared if capacity is exceeded.
  - Total project cost about \$15M, paid for with bond, SLRF, Efficiency Maine incentive.
  - Selling renewable energy credits for \$50k/year
  - Annual savings estimated at \$1.1M/year = 12–13-year payback

- Benefits: allows us to participate in demand response programs and serves as emergency power, lowers biosolid management costs

Jamie Garvin, ecomaine

- 1/3 of residents in Maine send their trash/recycling to ecomaine.
- Material that is not recycled gets incinerated and applied to ashfill/landfill, which is a 90% reduction in volume and produces very little methane.
- Single sort facility: 3.5 minutes materials go from the tipping floor to bales.
- Waste to energy: burn at 2,000 degrees F, byproducts are waste, ash, and cleaned flue gas.

Abbie Webb, Casella

- Casella has been measuring their carbon footprint since 2005. 81% of footprint from landfilling and 17% from transportation
- Juniper Ridge landfill has had gas collection since the 2000s. Using drone-based sensors to pinpoint opportunities to capture more methane.
- Using their own methods, Casella determined that for every metric ton of GHGs that they emit, they are preventing 4.8MMT GHGs that would otherwise be emitted.

- 2:10-3:30pm: Discussion and Drafting Recommendations:

- Controversy around Juniper Ridge landfill, sludge, polluting the waters of the Penobscot Nation. How can the task force help with this issue? The norms and expectations around management of sludge have been changing.
- What happens with the LFG produced at Juniper Ridge and what are the next steps for methane reduction? Currently gas that is captured is flared. The next step is to do better things with the organics that would be going to the landfill.
- Decreasing fleet emissions: the biggest reductions we've seen are through routing efficiency, upgrading equipment. Have some compressed natural gas vehicles. Have 2 electric trucks in the pilot stage in VT.
- How can towns calculate the emissions benefit of different choices for diverting waste? Transportation costs are usually the biggest factor. Ecomaine looked at the difference between curbside pickup and personal vehicle trips, and the difference wasn't as large as one might think.
- What does Casella consider carbon sequestration & renewable energy? Followed EPA accounting: some biogenic carbon is sequestered in the landfill, biosolids land application has a carbon sequestration benefit, renewable energy: landfill biogas, solar and wind at some facilities.
- Do you see your business model shifting as less waste is generated? We did not used to charge a tipping fee for recycling, now it's the same as MSW. With extended producer responsibility (EPR) we will eventually be able to make more from recycling than from MSW.

- Drafting Recommendations for Methane Reduction/Capture

- Review of potential strategies include encouraging anaerobic digestion, food diversion, food waste and manure management for farms, assess/reduce methane emitted from active and closed landfills, education around the impact of waste on emissions and removing other barriers to recycling/food waste diversion in low-income/MF housing.

- Discussion of Recommendations:
  - Benefit of more staff (DEP and Regional Planning Offices) capacity to support these efforts.
  - Signal state support for these strategies, permitting and regulatory structure, technical assistance for towns, etc.
  - Incentives for public-private partnerships for anaerobic digestion (AD)
  - Regulatory certainty, sending clear signals to investors that we won't just change our policy down the road.
  - Maine is the only state in the Northeast that provides Class I RECs for landfill gas- do we want to keep this practice?
    - The current incentive structure favors landfilling- how do we flip the incentives? Some towns don't have other options. Prioritize incentives to regions that don't have any alternatives.
  - Ensure collaboration between DEP regulation of waste and DACF regulations on animal feed to divert food from disposal.

*Several minutes missed as the notetaker had to step away.*

- Task Force members need a better understanding of where the largest emissions reductions come from; staff will work on outlining this more clearly.
  - Reduce burden on towns by assessing where the opportunities are on a statewide level first, then pursuing these opportunities
  - Disincentivize disposal of construction materials/help people understand how to sort.
  - Make sure towns have incentives to divert waste rather than inefficient/expensive recycling programs that place the burden on consumers.
  - Next meeting: lay out process for the group to make decisions.
- 3:40pm: Meeting Adjourned

#### Reminders:

- Detailed informal meeting notes including timing of discussions are provided in the [March MMTF folder](#), which is accessible to all members and to the public upon request.
- Reach out to Megan Mansfield-Pryor ([megan.mansfieldpryor@maine.gov](mailto:megan.mansfieldpryor@maine.gov)) for any additional input.