

Waste Panel Meeting #7

2.22.2021

Attendees

Chair (present):

- Martin Brand, Deputy Commissioner, New York State Department of Environmental Conservation

Members present:

- Bernadette Kelly, International Representative & Recording Secretary Teamsters Local 210
- Brigitte Vicenty, Founder, Inner City Green Team
- Dan Egan, Executive Director, Feeding New York State
- Dereth Glance, Executive Director, Onondaga County Resource Recovery Agency
- George Bevington, Senior Project Manager, Barton & Loguidice
- Jane Atkinson Gajwani, Director, Energy and Resource Recovery Programs, NYC Department of Environmental Protection
- John W. Casella, Chairman, CEO, and Secretary, Casella Waste Systems
- Lauren Toretta, President, CH4 Biogas
- Michael Cahill, Partner, Germano & Cahill, P.C.
- Paul Gilman, Senior Vice President and Chief Sustainability Officer, Covanta
- Resa Dimino, Senior Consultant, Resource Recycling Systems
- Steve Changaris, Vice President, Northeast Region, National Waste and Recycling Association
- Tok Michelle Oyewole, PhD., Policy and Comms Organizer, NYC Environmental Justice Alliance

Members not present:

- Allen Hershkowitz, Founding Director and Chairman of the Board, Sport & Sustainability International
- Eric Goldstein, Sr. Attorney and New York City Environment Director, Natural Resources Defense Council

Key staff present:

- Sally Rowland, New York State Department of Environmental Conservation
- Molly Trembly, New York State Department of Environmental Conservation

Welcome

Martin Brand gives welcoming remarks, an overview of the meeting agenda, and notes that last meeting was a public input session. He explains that notes and major takeaways are still being worked on and thanks all attendees for joining. He also shares some updates:

- Consultancy Energy and Environmental Economics (E3) is looking at cross-cutting and sector-specific assumptions to go into the Integration Analysis. They are looking for feedback on assumptions from panelists which can be shared via email. Additional assumptions will be put in this week.
- The Adaptation and Resiliency Workgroup, which is part of the Land Use and Local Government Advisory Panel, is meeting now and is looking for a liaison with this Advisory Panel, preferably someone with facility experience. Lauren Toretta and Dereth Glance volunteered for the liaison role.

Agenda items for today's discussion:

- Equity considerations for the Climate Action Council's Integration Analysis
- Presentation of Draft Recommendations for:
 - Water Resource Recovery Facility Subgroup
 - Materials Management Subgroup

Models Update and Emissions Estimates

Sally Rowland provides an update on the models and emissions estimates:

- Sally: Total emissions in 2018 was 359 million metric tons (MMmt) of carbon dioxide equivalents (CO₂e). 47.5 MMmt or 13% of total is from waste sector, not a miniscule amount but not the biggest player when looking at overall emissions. 37.1 MMmt is from landfill, 3.4 MMmt from combustion, and around 7 MMmt from recycling. There is also a biological component (i.e. composting, anaerobic digestion), which under the current inventory is entered as zero.
- We are going to recalculate those emissions in different scenarios. For landfills, if we integrate different approaches for waste reduction, we want to look at what the effect is on the outcome/ I took a look at modeling Beyond Waste (a waste management plan from 2010). If implemented, there would be very aggressive recycling (and some waste reduction). For newspapers, the current 66% recycling rate would have to go to 90%, and for corrugated cardboard from 63% to 90%. For food scraps, landfill avoidance would go from 1% to 65% by 2030, then 80% by 2050. If Beyond Waste goals are achieved in addition to a 5% increase in gas collection every 5 years, we can achieve around an 80% emission reduction from landfills. Overall, it's a doable goal; an 85% reduction by 2050 can be done, but it would require very aggressive action.
- Also, we just did a combustion reduction scenario, and since we have less combustors than we used to, and less waste going to combustion, by 2030 they'll be down an estimated 28% from

1990, with the potential to reach a 40% reduction from the highest peak (1992). In the combustion side we're really looking at waste leftover from landfill. Under this scenario we don't receive any reduction in combustion as that capacity will still be used for residual waste. Wastewater is the next one up, haven't looked in detail at that yet. We've looked at a bit of biological waste; composting isn't a big issue or contributor but can lead to minor emissions.

- Martin: There are a number of people asking for emissions calculations to ensure priorities are empirically backed, and we will provide the panel with those numbers as they come available.
- Jane: Were the emissions calculated for landfill broken down by waste source?
- Sally: Yes and no, it assumes a waste composition underneath the model that EPA uses, and doesn't let you change that composition over time. If we focus more on food waste or cardboard over time it doesn't allow us to reflect that in the model, which is a short coming of the model at this point.
- Steve: Have you talked about reducing emissions at facilities. When you reference 80%, was that for combined or separate tracts for those reductions?
- Sally: I'm not sure what you're asking. These are the numbers emitted from those landfills based on the waste over time.
- Steve: You mentioned how you recycle a greater percentage of cardboard to get an emission reduction, but then also talked about physical plant stuff (i.e. reducing methane leaks), is that all added together to get to that 85%?
- Sally: Yes, it's all put together. That percentage accounts for reduction in waste, increase in gas collection, reducing leaks, etc.
- Martin: Moving forward, we just sent notes last Friday from the bioeconomy discussions. Many of you have asked about basic assumptions for those for renewable natural gas (RNG) and biogas. Those should've been in the subpanel leaders' inboxes, feel free to share those with your working panel members.
 - Scheduling items:
 - Next meeting will be on 3/3.
 - Also on 3/3, Energy Efficiency & Housing subpanel is having a presentation on refrigerants at noon. It might be good to have someone join in on that discussion, especially from Resa's group which has been looking at refrigerants.
 - Final recommendations should be wrapped up in the March 19 timeframe.

Equity Principles

- Martin: The Climate Leadership and Community Protection Act developed principles and guidelines to help the panels frame their recommendations with equity principles integrated. These are highly focused identifying opportunities, impacts, and concerns moving forward, including equitable access to jobs, infrastructure and quality, preservation of cultures and traditions, adaptation and resiliency, and protection of natural working lands. We should make sure the panel is at least qualitatively identifying opportunities and areas of opportunity for stakeholder engagement as we develop these policies and recommendations. The Local Scale and Climate Justice group (led by Tok) has been looking at some of these principles and I've also asked the group to look at other subpanels and provide input on suggestions or concerns to help subpanels move forward on this front with the recommendations. We can open the floor to any general thoughts or concerns if anyone would like to add anything.

- Tok: As we're making recommendations and thinking at granular levels for equity (i.e., levels of pollution for job benefits, workforce development or trainings), granularity is great but we also need to understand the broader picture of how the recommendations we're making are influencing longer term climate change and environmental consequences and abating standing emissions and impacts. Are we doing enough to abate long term items like food insecurity and transport that leads to air pollution issues with greenhouse gas (GHG) emissions? We need to think big and think small simultaneously.
- Martin: Well said. It is worth noting some of these strategies will require additional infrastructure and the associated impacts of that, like co-pollutants and ancillary benefits, should be at least at the identification level, even if we don't have some of the granular data that you mentioned.

Updates from Subpanels

Below are the notes for each subpanel update given during the meeting. Some of these updates led to broader discussions, which are summarized within the subpanel updates.

Water Resource Recovery Facility Subpanel – Jane Atkinson Gajwani

- Jane: This a working draft for discussion purposes and all draft recommendations are subject to change as we'll be refining in the mean term
 - See slides 1-25 for information on draft recommendations for the wastewater sector
- Martin: Thanks, Jane. I'd like to mention that lots of consolidation will have to happen. It's good to see this level of detail, but for the official recommendations we will likely be doing a lot of cross-cutting and combining, dissolving the subpanel silos. One quick question, you mentioned the wastewater study. I know Steve has talked about the monitoring of emissions and actual data coming out of landfills and facilities. I think you could capture that as a specific recommendation.
- Jane: We thought it could be classified in the enabling category, but weren't completely sure where it would fall in.
- Martin: Right, well work to capture it some way and flesh it out, I think it would be worthwhile carrying through.
- Tok: I have a question. If wastewater treatment plants (WWTP) are likely to cause increase truck traffic in certain communities, I was wondering if we are thinking about alternative fuel sources for these, such as electric trucks? I think this is worthwhile because the transport of materials is so truck-heavy.
- Jane: Yes, that didn't get captured in what we talked about here, but we are specifically talking about transporting food waste to the facilities. This does have potential to substantially increase truck traffic. In New York City (NYC), we have thought about barging in waste in lieu of 20 trucks. For trucking itself, it makes sense that it should have a low emission profile. Non-stationary sources can have a big effect on criteria pollutants in neighborhoods and we definitely don't want to contribute to anything like that.
- Martin: You can identify that as a current concern. Other panels are looking at electrification strategies. I don't think we'll discuss those much in our panel's group, but if there's something unique in the local scale, we should capture those in the template as we go forward.
- Lauren: Jane is obviously presenting from perspective of WWTP, and this goes back to your point Martin that so much overlaps between subpanels, but I was thinking that if many of these

facilities or areas don't want consolidated truck traffic, can we expand where they take the materials? I know the Agriculture and Forestry Advisory Panel is talking about on-farm digesters and privately owned digesters, which could be another endpoint than just WWTP. Jane is coming at it from one lens but with so many different subpanels, there is going to be duplication. If we include expansions of organics handling beyond the facilities Jane was referencing, it may help control the increase in localized truck traffic at those particular sites.

- Martin: Good point, you can explore that idea in your landfill subpanel too, like co-location of organics handling at landfills. A vertically integrated facility may be more efficient in that sense. This is certainly not a bad thing to include in your recommendation. Location plays a factor; in NYC where there is so much food waste, WWTP may be best option there. We should capture it all and leave it all on the table, and we'll try to integrate where we can, then let subsequent evaluations and the Integration Analysis refine the policies.
- Lauren: How will the slides get integrated for our panel?
- Martin: We'll try to do that ourselves and try to make one coherent package, which is getting bigger every day. We'll try to integrate and pull all sectors together. We'll capture all the good thoughts from subgroups in a comprehensive way.
- Steve: I thought from the call yesterday that we were to stay away from transportation issues. Is there some point at which the Transportation Advisory Panel will present how they see things working in the waste section?
- Martin: I think you're right but not sure how that'll work out in the logistics standpoint. In NYC, there is some number of large commercial vehicles that handle waste hauling, and there is significant potential for greenhouse gas (GHG) reductions there. It needs to be coordinated, though. For example, if tomorrow there were a policy for all commercial trucks to be electric, we wouldn't have to deal with it in waste specifically. I think there is going to be a lot of integration moving forward.
- Dereth: Did the group talk about traditional WWTPs, maintaining infrastructure and making it more robust for the adaptations that may occur?
- Jane: Good question. When George and I look at this, our go-to is to look at energy efficiency, but the energy piece doesn't really fall into our purview. We didn't include it because we are focused on the methane and NO₂ associated with wastewater. It would be great to include it, but we didn't put that in because we didn't think it was something we were supposed to be addressing.
- George: If we're not putting energy efficient motors and blowers and variable frequency drives (VFDs) and soft starts, focused on this, because all of that should be standard business practice. When you expand it out to encompass something like that, this becomes an 80-headed animal that keeps going and going.
 - Martin: If you think it's of significant concern that it should be mentioned, Dereth, mention it in the template somewhere.
 - Dereth: People don't think about this stuff except for waste people.
 - Bernadette Kelly: I'm interested in what you were talking about, Jane, about moving from cesspools to city sewer systems. Speaking anecdotally, it seems like the current jobs that involve septic systems are low-road operators with irrational pickup systems with old trucks. The things you were talking about waste in Long Island sound are very real, if we were to discuss moving to system that makes more sense, having homeowners hooked up to a better system, you also

mentioned better jobs. The construction piece makes sense and would be awesome for that sector. The people that need to replace septic systems are typically mom-and-pop businesses that don't have the funding. In non-rural areas, what are your ideas of long-term jobs to maintain those systems?

- Jane - Good question. I'm not sure if I have a clear view of that. I was thinking of public works jobs in the near-term. Converting municipal systems creates more jobs, different than small businesses that service septic systems.
- George: I don't have anything on that either.
- Martin: Great question, Bernadette. We should look more into that concept.

Materials Management Subgroup - Resa Dimino

- Resa presents draft recommendations from the Materials Management subgroup (see slides 26-57).
- Martin: Just a reminder that we are capturing chats and saving all the comments. We received one about concentrated animal feeding operation (CAFO) waste and human waste. CAFO waste is something the Agriculture & Forestry Panel is looking at, and it has some overlap with the solid waste panel discussions. Thank you for putting your question in the chat.
- Martin: Other panels are looking at diversion issues. We'll capture everything we can in a coherent way. Initiative 6 has a whole host of potential strategies regarding procurement and construction and demolition and that sort of thing. Maybe we should be more granular on those topics in the next iteration. We could spend a lot of time on that. Just a suggestion.
- Resa: I think we had them separated and lumped them back for the ease of presentation. I agree that there should be some separation of the recommendations on procurement requirements, financing of end markets through ESD, and mandatory minimum content and legislation. That would generate a lot of good discussion.
- Martin: Regarding bio-solids, maybe some recognition of emerging contaminant issues could be worth mentioning as an enabling strategy to continue programs. It could affect beneficial use or marketability of a final product. I know for Gareth and others in the compost business that's a big concern.
- Resa: That's good, we're seeing lots of Extended Producer Responsibility (EPR) policy suggested as a way of solving that.
- Tok: How much have you thought about what should fall under an EPR scheme vs what should just be phased out entirely?
- Resa: We have been prioritizing things for EPR, using the GHG profile particularly, for products like packaging, and printed paper, carpets textiles, renewable energy (RE) products like solar panels, batteries, and appliances containing refrigerants. You raise a good question about when we need something and when to phase it out entirely. For some of the packaging material and formats, that's a good question to be asking. Pure EPR folks would say that the program, if properly organized, should take care of that. Fees paid would discourage use of those items and the market would move away from them. One program in France has eliminated packaging types based on pricing, so there is some evidence it works, but we're not quite there yet. It would be good to have some dialogue about where that line should be drawn. Our group hasn't talked about that.

- Martin: Resa, you're right that the key focus of this panel is GHG. Some of the solutions have ancillary benefits, solar panels for example would facilitate meeting the state's RE goals. As the evaluation continues the focus will still be on the methane and GHG emission reduction potential first.
- Steve: I thought in our discussions and research, we discussed the concept that as part of the EPR requirements, there would be some type of GHG analysis in their packaging. Eco modulation fees may or may not be tied to GHG. In diversion, we should be looking at the GHG profile.
- Resa: That is what we are suggesting, right.
- Martin: We could incorporate some sort of Life Cycle Analysis (LCA) that looks at GHGs.
- Steve: That goes back to Tok's question, right?
- Tok: Yes, for products that we decide we want to do an EPR scheme. My question was more about deciding whether some products aren't worth producing at all given all of the costs, especially if there are alternatives.

Meeting Wrap-Up

- Martin explains the AP will continue to work on recommendations. Please reach out to staff if you need any data.
- As a reminder, the next meeting is March 3rd. There will likely be presentations from the landfill and local scale subgroups.
- Jane: I saw in the agenda that we'll be sharing templates with other subgroups by Wednesday?
- Martin: Yes, but that was a bit aspirational. Put them on the SharePoint for people to look at, which Molly or Sally might have mentioned. We may have a little more time than the next couple of days.