

1. Subcommittee Introductions

2. General Meeting Agenda

2.1: Summary of Subcommittee Goals

- Understand existing waste systems and technologies.
- Identify community concerns regarding adaptation of waste solutions.
- Provide recs on priorities to consider regarding waste solutions.

2.2: Connecticut's Waste System Presentation

- Provided overview of key definitions which are located on the PowerPoint slides.
 - Disposal means MSW that isn't recycled and instead sent to a landfill or waste-to-energy facility to be buried/burned.
 - MRF (Materials Recovery Facility) is a facility that receives materials eligible for single recycling, often from curbside recycling bins, and sorts and bales those materials of a recycling at another facility.
 - WIWO means What's in What's Out, a standardized list of materials that are recyclable through the single stream across the state.
 - Generator means a person/entity who creates MSW by discarding a material at the end of its useful life.
 - Source separating means separating types of MSW.
- CT Waste's hierarchy
 - Source reduction/reuse
 - Recycling
 - Composting
 - Bulky waste recycling
 - RRF (waste to energy)
 - Landfill/incineration
- How is MSW collected in CT?
 - Municipally managed collection services
 - Private subscription services
 - Self-haul (aka drop-off)
- Data the state collects:
 - Landfills report to the state
 - MRFs and composting facilities and towns
- Data Caveats
 - Might contain typographical errors and inaccuracies.
 - May be missing.
 - Recycling data is frequently double counted as it gets transported between CT MRFs
 - Doesn't include MSW sent directly out of state from generation locations; materials sent to small scale compositing facilities; textiles received by charitable orgs; and anaerobic digestion facilities where no more than 40% of the feedstock material received is food scraps.
 - Bottle bill tonnages based on estimates.

- How much waste does CT generate? Where does it go? How much is recycled?
 - In 2020: 3,439 tons of MSW (about 0.9 tons per person)
 - Of that total 2,188,395 tons were disposed
 - 1,251,293 tons were recycled or composted.
 - MSW generation from 2012-2022: Diversion rate has stagnated. Slight MSW decline. No significant changes.
 - What's in our trash? (MSW composition (2015 study) – Largest categories are paper 23% and food waste 22.3%
 - 41.3% of disposed waste is not currently recyclable in a curbside collection program. A lot of what goes into the trash is recyclable, recoverable, or compostable.
 - CT disposal – in two types of facilities
 - RRFs
 - WIN Waste Bridgeport RRF, managed approx. 720,000 tons CT MSW in 2022
 - Landfills
- RRFs
 - Following MIRA RRF closure in 2022 there are four active RRFs.
 - RRFs are a source of pollution. The remaining RRFs are private run entities.
 - RRF byproduct is ash sent to ash landfills in Putnam, CT or Shrewsbury, MA
 - Some MSW is exported to RRFs in MA, VA, and NY
 - Remaining RRFs in CT are between 27-35 years old.
 - CT RRFs are a source of air pollution.
 - Remaining CT RRFs are privately run.
 - Move away from landfills → Hard to find space for landfills and most landfills were at/close to capacity. CT prides itself on having clean water for drinking and there were no viable locations for new landfills that wouldn't have impacted the water. This happened in the late 80s/90s.
 - Wallingford RRF closed in 2015 which reduced number of RRFs to five
 - MIRA RRF before its closure had steadily declining on waste it was managing.
- Landfills
 - CT no longer has MSW landfills.
 - MSW is transported long distances to reach disposal locations.
 - Landfills without significantly technological improvements are contributors to greenhouse gas emissions.
 - The bulk of the landfill CT MSW is going to Pennsylvania and Ohio.
 - Disposal technologies that CT has been keeping an eye on since other states have been considering adopting this technology:
 - Gasification, other thermal technology
 - Use heat to break down MSW into syngas/other byproduct.
 - Byproducts can be used for energy.

- Emissions are compared to traditional CT WTE – more information needed.
 - Expensive
- Mechanical Biological Treatment (MBT)
 - Combination of technology that can pull out recyclables and/or organic material for recycling prior to disposal in RRFs.
 - Higher risk of contamination of potentially recyclable and compostable materials due to items found in MSW streams such as dirty diapers, pet waste, and household hazardous waste.
- Joseph Dickerson: We must think about how we are providing education and resources for people to dispose of their materials properly. His work with Sustainable CT taught him that it is crucial to set aside funding for a specific person to stand by waste bins and serve as a trash/recycle/composting liaison. They can inform people of where stuff belongs. Walking people through the process.
 - James Albis: Municipals do have staff that can help with that education. For drop off programs that have implemented waste education efforts have seen an improvement: Higher materials. There is also recycling education where they do audits and provide targeted feedback. Also heard of new technology that can help with these outreach efforts such as phone apps.
- Will the CT DEEP conduct an update of the 2015 waste characterization study? The Pandemic changed habits?
 - James Albis: We are looking into partaking in studies but are wary of the cost.
- Single stream (e.g., blue curbside bin/drop off location)
 - Paper, glass, aluminum, and plastic that are designed for recycling by state statute and regulation.
 - Materials sent to MRF for sorting and baling and then is marketed to a processor for recycling.
 - Any material that can't be recycled is called residual and is sent of disposal.
- Bottle bill redemption program
 - Certain beverage containers have a deposit the consumer pays upon purchase; those bottles can then be redeemed at independent redemption centers or at most retail locations that sell such containers so that consumer gets deposit back.
- DEEP programs
 - HHRA glass collection program
- Recycling
 - Co-collection – food scraps bagged separately from other trash but placed in same trash bin.

- Separate route – dedicated collection route for source separated food waste.
- Dropoff – source separated food scraps drop off locations at local transfer station/satellite municipal collection location.
- Recycle CT wizard app run by non-profit organization.
- Note: Chemical recycling – umbrella term for several types of technology that breaks down plastic, glass, or metal. Facilities tend to target plastic more often. No facilities of this type in CT. DEEP is still learning about these technologies and happy to continue the conversation as it progresses.
 - Dianne Lauricella – When will the CTDEEP change the following mandated recyclables for black plastic (very popular for take-out food containers) and food scraps for all generators?
 - James Albis – One facility in CT that can recycle black plastic. Not on the WIWO list. This list is updated but black plastic was not agreed upon. Only one MRF operated can technically process black plastic but haven't adopted this for various reasons. Black plastic messes with machinery since it cannot be categorized fortunately there is technology that helps identify this type of material but there's only one facility in CT which has this capability.
 - MIRA decided to cease waste-to-energy operations at its Hartford RRF in July 2022; the plant has not been accepting MSW since then. There's neatly a 1:1 correlation between the quarterly MSW tons that MIRA had recently managed before ceasing operations and the increase in post-closure MSW tons being exported for disposal.
 - Tip fees for MSW disposal have risen significantly as export has increased in recent years – and with MIRA ceasing operations – and are expected to continue rising.
 - Recycling costs are also volatile, but there is less information available on how those costs are passed to municipalities and taxpayers.
 - Alex Rodriguez – Are there discussion between DEEP and administration regarding increasing MSW capacity for existing incinerators?
 - James Albis: There may only be one facility that is capable of expanding. Don't have any proposals from facilities to expand.
- MSW tip fees have increased over time – in the last five years as MIRA ramping down their processing capacity to fees had been steadily rising. The significant increase going over \$100 per ton.

2.6: Discussion – Waste Reclamation Facility in North Haven, CT

- Alex Rodriguez – Given where we are now regarding recycling of mattresses and other sensitive types of equipment what is DEEP and the administration hearing from businesses responsible for those products? Is there a willingness to include more types of equipment in a new EPR law?
 - James Albis – Businesses want to do the right thing. They have been generally good to work with. In terms of adding new materials to EPR programs – the legislature over the past years has passed two. There is an appetite for EPR in the legislature to add more products to the list.

- Leigh Whelpton – Request for James Albis to expand on food scraps how his team can't do much without legislative approval.
 - James Albis – Do not feel like they can do that significant change to the system without legislature approval. There was a bill proposed last term, but it did not make it through.
- Joseph Dickerson – There was an effort to get legislation passed around food scrap collection/disposal. Last legislation session the request was packaged with a bunch of other things. This time it's focus will be specifically on food waste collection and disposal. Encouraged people to put their support for legislators.
 - James Albis – DEEP hasn't finalized legislative agenda. Nothing set in stone. We have heard about the concerns around the package deal last term and know of others wanting to take a different approach. There is a lot of progress we can make to avoid the need for disposal in a lot of cases. Open to having discussions with folks on how to do that.
- James Albis – A big component of EPR framework is to make disposal free. Right now, there's a fee associated with disposal which is linked with illegal disposal. Put the disposal on the manufactures and not the generators/retailers.
- Ian McDonald - Does DEEP have data on municipalities in CT or elsewhere which has enacted unit-based pricing programs both in terms of waste reduction and cost? Also very much favor standalone food scrap diversion bill
 - Gabrielle Frigon: Ian - please visit the following link to DEEP's website: <https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Pay/Save-Money-and-Reduce-Trash> If you scroll down to close to the bottom of that page you will find links to PDF reports for Mansfield and Stonington CT under the heading "Success Stories"
 - James Albis: Ian, the data we have relative to unit-based pricing is limited as there are only two municipalities that have implemented it for a substantial period of time. At a high level, the data does show that those municipalities generate less MSW for disposal on a per capita basis.
 - Mark Mitchell: Where does Hartford and central CT trash now go? Who manages it?
 - Joseph DeNicola: In CT, each municipality is responsible for contracting for the disposal of its waste and recyclables. I don't have information on hand for destinations by municipality. In some cases, that information can be found on a municipal website.
- Aaron Goode - I'm curious what DEEP is doing to increase enforcement of the current list of mandated recyclables? Is there any data on how many enforcement actions have been taken over time? How much waste is being illegally excluded from the recycling stream, and the marginal utility of enhanced enforcement on diversion rates? Adding new materials to the mandated list seems like an exercise in futility without more robust enforcement.
 - James Albis – Is aware of municipalities doing targeted compliance assurance. With residents on recycling DEEP doesn't contract with recycling services that's more at the municipal level. What DEEP does is respond to complaints particularly if there's a multi-family building for example.

- Gabrielle Frigon – Respond to complaints and drive by inspections noting inadequate recycling collection being provided at a location where trash services are being provided. Would have to address it with the service provider. Statute that requires manufacturers to offer recycling when providing these services. If the client refuses their provision of services, they have to get the documentation in writing that they are outsourcing this from an outside provider.

MIRA Dissolution Authority – Joseph DiCola, CT DEEP

- New governance structure in place
 - 11 Directors, Bert Hunter, Chairperson
 - 5 members identified and to be appointed by Hartford City Council
 - Meetings are open to the public and accessible online.
- Immediate priorities
 - Provide oversight/recommendations as needed to identify the immediate environmental needs and knowledge necessary for future redevelopment of the Authority’s resource recovery facility site in South Meadows and engaging Hartford and other stakeholders with respect to the future of such site in accordance with Sections 9(a) 1&2 of Public Act 23-170
 - Provide oversight/recommendations concerning the transition of Connecticut Solid Waste System facilities, contracts, and operations to entities other than the Authority in accordance with Section (a) 3 of Public Act 23-170
 - Conserve cash reserves currently at \$55 million
- First report to legislative committees in January 2024
- Website is updated regularly and includes information on Board and other meetings.

AB ECO Park – Gabrielle Frigon

- The proposer has shared with the department about two years is a concept for an ecopark that will house several technologies for waste management. There is a link on the agenda that will take you to a document with a link to their proposal (pg. 4). Gabrielle shared her screen and provided an overview of the proposal. Mechanical separation which would conduct mechanical sorting to remove glass and additional recyclables. Would also cover inerts (small pieces of debris/plastic/rocks, etc. non-recyclables) to landfills. As part of the second phase proposing biological extraction – Food scraps, dirty diapers, and other that are organic nature.
- Two phases where energy for the digester phase could be generated and used as a fuel for vehicles or electricity. Incineration plan would be realizing electricity generation as well.
- To establish this facility there’s a lot of front-end work to be done including cleaning up the location. Might have the need to create structure foundational area for constructing different technologies at that location. Application process to get permits to construct and operate these technologies.
- Timeframe is dependent on when they do the property clean up and this date is still not determined since they are looking for funding from the Department of Economic Development. If receive funding from DECD they would have to evaluate the overall cost for cleaning at least a portion of the property where the facility will be developed and whether the DECD funding will suffice.

- Have not engaged directly with municipals on their feelings for the development proposal. They would want proposed developer to engage with the residents in the area and chief elected officials – Since in North Haven it might not trigger the new environmental justice law but if it is triggered then they would abide by the law which requires public participation plan and engagement with elected officials.
 - Edith: North Haven is not a distressed communities so the EJ law would not apply at this time. Still waiting for a new list of who constitutes distressed communities.
 - Gabrielle – If developers apply for a new program that is in the process of being established for large scale filling operations because they're looking to receive materials to build the site... a lot of the space is wet/wetlands. Only exception: If get accepted as one of four pilot project sites will have to go through EJ formal process. Never worked in the program for wetland protections but believes the Army Corps of Engineers or state oversight might be triggered in terms of the filling of any wetland areas.

3. Public Comment

- Michael Piscitelli – Comment about the North Haven Proposal. Need to identify in which the Q&A will be logged into the record. Has heard things that are inconsistent from DEEP presentations.
 - Gabrielle Frigon: Confused on what Michael referred to by the Q&A process?
 - Piscitelli – Number of questions/concerns that need to be logged. Log the questions and answer them.
 - Gabrielle: The Q&A would be recorded in the transcript of the video recording.
 - Chris Ozyck: Public comment. Require towns to have a management plan that requires that towns have permission from receiving towns.
 - Chairs will give responses to the questions.
- Ian McDonald - Want to clarify that the location of the Access Road in New Haven wouldn't potentially trigger EJ law given some New Haven EJ census tracts
- Chris Ozyck - Put the onus on towns to collaborate and reduce waste. This will limit towns and cities that are EJ some say in sighting. Accountability by local authority.

4. Next Steps

4.1: Frequency of Meetings & Scheduling

- N/A

4.2: Identified topics for next meeting – Existing Waste Solutions Presentation & Discussion

- N/A