

Hartford Solid Waste Task Force Vision for Sustainable and Just Waste Management

The Hartford Solid Waste Task Force (SWTF) urges state and town leaders to work together to build a consensus on a desired future waste management system that can redress environmental injustices of the current system and provide a long- term solution that protects human and environmental health. ***The SWTF opposes any future development of the current Materials Innovation and Recycling Authority (MIRA) site in Hartford's South Meadows for waste treatment, either as a trash incinerator or transfer station, and calls for a plan to transition the property back to the City of Hartford for future economic development.***

CCSMM Recommendations – Necessary but not Sufficient

With the announcement that the trash facility is scheduled to shutdown by July 1, 2022 (assuming it does not fail earlier), it is necessary to develop a plan to deal with trash in the near term and provide a pathway to the desired future system. However, there has been no substantive discussion of such a desired future state. The only plan discussed to date has been to use the Hartford site as a transfer station and to ship our waste to out- of- state landfills. MIRA's plan to convert to a transfer station was rejected¹ by the Department of Energy and Environmental Protection (DEEP), and the MIRA was instructed to come up with a more innovative solution. DEEP organized the CT Coalition for Sustainable Materials Management (CCSMM) to "explore ways to reduce the amount of waste that is generated in our state, improve reuse, recycling, organics collection, and other innovative solutions." CCSMM issued a draft report listing a number of potential actions for the CT General Assembly (CGA), DEEP, and municipalities.

The SWTF endorses the CCSMM recommendations and is moving forward to promote those actions within its sphere of influence and control. ***However, it must be emphasized that the waste crisis is a statewide problem and will require leadership at the state level.***

CCSMM projected that unit- based pricing and source separation of food waste could reduce disposal requirements by more than 1 million tons, eliminating the need to replace the MIRA facility.

The shortfall in disposal capacity when the MIRA facility stops operating is a problem much bigger than can be addressed by the 51 MIRA member towns. The CCSMM projections assume all 169 towns adopt their recommendations, and there is no discussion of the time lag in implementing the programs or the costs involved. Meanwhile, Hartford and the other MIRA towns are under the gun to find an alternative disposal method by July of 2022.

Investment in Waste Infrastructure & Policy Reform Needed

The SWTF planning is grounded in the harsh reality that the CCSMM recommendations will not be sufficient to avoid some period of shipping our waste to out- of- state landfills and they will not eliminate the need to make investments in some long- term infrastructure for waste management. It is critically important that we do not allow a single- minded focus on the immediate crisis to lock us into a path dependent on expansion of trash incinerators or long- term dependence on out- of- state landfills. Our handling the immediate crisis must put us on a transition pathway toward a system that optimizes recovery of materials and minimizes environmental impacts.

The task force is advocating for a network of smaller, distributed facilities to receive municipal waste, employ state- of- the- art separation technology to recover organics and potentially recyclable materials. These facilities would be a necessary complement to efforts to expand source separation of food waste and recyclables to absolutely minimize waste sent for final disposal. A distributed network of smaller facilities

¹ https://portal.ct.gov/-/media/DEEP/waste_management_and_disposal/solid_waste/MIRA_RFP/MIRA-Annual-Ops-Plan-Response-71420.pdf

Hartford Solid Waste Task Force Vision for Sustainable and Just Waste Management

would help redress the environmental injustice of large trash incinerators sited in poor urban communities and reduce truck transport of MSW and associated diesel emissions.

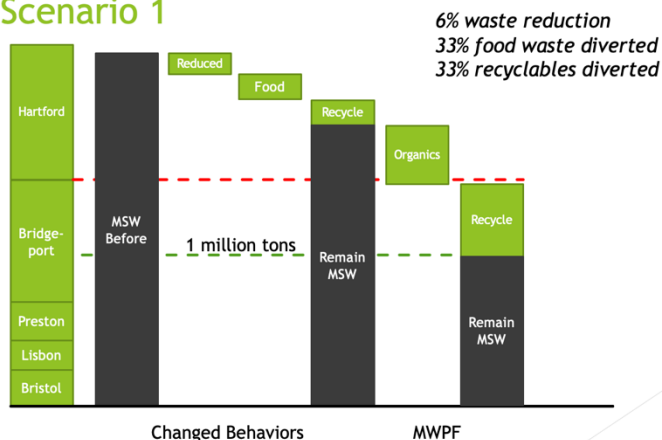
This vision will require public policy reform to align financial incentives with the state's waste hierarchy. Although landfill is the least preferred disposal option, it is the cheapest. Requirements to remove the biodegradable organics or imposition of a disposal fee would be required to make landfill disposal more expensive. Recovering materials for sale into bulk commodity markets will not justify investing in systems to collect and separate potentially recyclable materials. It will be necessary to create incentives to attract manufacturers to CT to process recovered materials into more valuable fuels, upgraded materials, or end products. None of this can be accomplished by MIRA towns acting alone. It will require state leadership.

A Practical Transition from Incineration to Material Recovery

Some have objected to the proposed separation facilities as a barrier to increased source separation. Another concern is the current turmoil in markets for recovered materials. Why incur costs to separate materials with little value? The solution to the waste crisis is not an either- or choice, but rather all of the above. A simplified analysis presented below shows the value of a separation facility as a necessary complement to enhanced source separation. But there is no point separating our wastes without a coordinated effort to attract industry to process the recovered materials in CT, creating jobs, building the grand list, and moving CT toward a more circular and resilient economy.

What would it take to reduce CT waste disposal requirements to the ~1 million tons proposed by CCSMM over the next 10 years? A presentation² to CCSMM by Skumatz Economic Research Associates indicated unit-

Scenario 1



based pricing typically delivered an 18% reduction, split evenly among reduced waste generation, increased recycling, and recovery of food waste³. These behavioral changes would eliminate ~520,000 tons of waste and could be achieved by diverting roughly one- third of the food waste and recyclables currently tossed in the trash bin- shown in the waterfall chart by three green boxes marked, Reduced, Food, and Recycle. But the remaining MSW to be disposed is still well above the capacity of the other four incinerators. However, if the wastes are then sent to a separation facility, aka mixed waste processing facility (MWPF), an additional

800,000 tons could be diverted, reducing the remaining amount of MSW to be disposed to ~1 million tons.

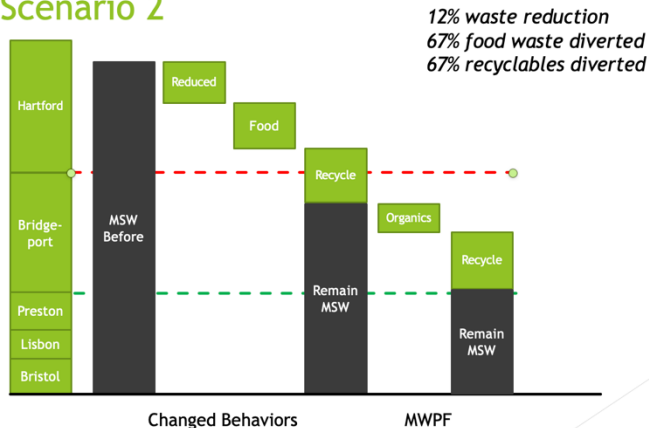
² https://portal.ct.gov/-/media/DEEP/waste_management_and_disposal/CCSMM/UBP-Working-Group/Skumatz---UBP-Working-Group.pdf

³ MA has implemented UBP, or Pay as You Throw, in 153 towns representing about 30% of the state population. MSW has been reduced ~9% over the last 10 years. MA 2030 Solid Waste Master Plan, Draft for Comment, Sep. 2019. <https://www.mass.gov/guides/solid-waste-master-plan#solid-waste-data-updates->

Hartford Solid Waste Task Force Vision for Sustainable and Just Waste Management

If the performance targets are doubled- 12% less waste generation and two- thirds of food waste and recyclables diverted – there would remain ~1.3 million tons for disposal. However, zero waste strategies plus the separation facilities could reduce disposal requirements to only ~700,000 tons, or about the capacity of the three smallest incinerators. The analysis also demonstrates the separation of MSW is not an either- or proposition. Even when two- thirds of the food waste and recyclables are diverted at the source, the separation facilities could still recover roughly 200,000 tons of food waste and other organics, 21,000 tons of metal, 164,000 tons of plastic and 186,000 tons of paper.

Scenario 2



Taking the First Step

This simplified analysis supports Hartford’s position that there is no need to invest in any disposal capacity at the MIRA site in the South Meadows. The SWTF acknowledges the proposed vision raises many unanswered questions. At present, we have only hypothetical projections of alternative visions for a future waste system. There are no hard data on the costs and environmental impacts. There are questions about the willingness of private capital to invest in these kinds of systems. ***The only way to answer these questions and to test the markets is to move forward and solicit bids for an initial 200,000 TPY facility.*** The bids would necessarily include proposals for processing recovered materials with details on the proposed business model to ensure financial feasibility. This solicitation is dependent on Hartford and area towns aggregating sufficient load to support the facility and identifying a potential site(s). It is critical to send a clear message on what kind of facility will be accepted by the community to encourage private investment- and what kind of support (financial, regulatory, etc.) will be provided to make the project financially feasible. Identifying specific sites and technology options that have community support is a necessary factor in getting credible bids from the private sector.

Promoting a Distributed Network of Smaller Regional Facilities

The SWTF also recognizes that the state cannot impose a top- down solution without bottom- up collaboration. Hartford is moving forward with programs to reduce the amount and toxicity of its waste. The Hartford Court of Common Council approved a resolution endorsing the Zero Waste International Alliance definition of zero waste and committing to development of a zero- waste plan for the city. The separation facilities described above have been proposed by Zero Waste Europe⁴ as a bridge strategy from landfill/ incineration to a more circular economy. Gershman, Brickner, and Bratton, Inc⁵. was commissioned to provide a survey⁶ of commercially available technologies for waste management to inform SWTF planning. Based on demonstrated performance of the separation facilities⁷, an additional 40 to 50% reduction in residuals sent for disposal could be achieved. The back end separation could help provide time to implement and expand source separation programs.

⁴ <https://zerowasteurope.eu/library/building-a-bridge-strategy-for-residual-waste/>

⁵ <http://gbbinc.com>

⁶ <https://www.facebook.com/1530835466/videos/10218518610906452/>

⁷ <https://plastics.americanchemistry.com/Education-Resources/Publications/The-Evolution-of-Mixed-Waste-Processing-Facilities.pdf>

Hartford Solid Waste Task Force Vision for Sustainable and Just Waste Management

The GBB study indicated that the separation, or mixed waste processing facilities are modular and size out at ~200,000 TPY capacity. If more capacity is needed, additional lines would be constructed. A facility with co-located treatment of the organics would require 10 to 15 acres. Since the processes to upgrade recovered materials look more like traditional manufacturing plants, these could either be co-located or sited at existing industrial parks. Manufacturing facilities should be easier to site and permit. ***The SWTF will reach out to surrounding towns to aggregate no more than 200,000 tons of waste and to identify an appropriate site for a facility.*** However, it would be preferable to have any process to solicit proposals for the site to be run by the state.

The Hartford SWTF looks forward to working with state partners to advance this vision for a more sustainable and just waste management system.

Submitted by the Hartford Solid Waste Task Force:

Chairperson, Thomas Swarr

Clarence W. Corbin, P.E., Member

Sam King, Member

Mark A. Mitchell, MD., Member

William Diaz, Member

James Sandler Esq., Member

Councilman James Sanchez, Ex-Officio Member