Solid Waste Advisory Committee (SWAC) June 27, 2019, 1:00 – 3:00 pm MassDEP, One Winter Street, Boston, MA Meeting Summary

John Fischer of MassDEP presided over updates and a discussion on solid waste management capacity. The presentation is available on the SWAC webpage along with this meeting summary.

Q: Will MassDEP make additional information on waste ban violations public? A: In the past, MassDEP has provided information on the banned materials observed, noncompliance by business sector, and the steps generators have made to return to compliance. Cardboard remains the biggest offender, followed by food waste. MassDEP will update this analysis and share it with the SWAC email list.

Q: Is the increase in waste ban violations due to decreased compliance or an increased number of inspections?

A: MassDEP calculates a failed load rate from our inspections which we can review and add into the above analysis referenced above.

Q: Why did DEP break the 2050 waste reduction goal into equal thirds, when in reality, the proposed reduction will not be linear, across the ten-year increments? Looking at the goal this way does not meet the reality of materials management challenges, particularly with respect to capacity. It would be helpful to identify the low-hanging fruit and the programs MassDEP will focus on, linking those together with the reduction goals. This would make the goals seem more realistic. Breaking the overall goal into equal thirds seems arbitrary.

A: While some factors, such as focusing on materials with the greatest diversion potential, may lead to greater waste reduction in the short term, other factors, such as the need for major legislative and policy changes, may take much longer, Given the complexity of these various factors, MassDEP has currently presented this potential goal based on an even, straight line decrease.

Q: Can you explain the philosophy behind the far-reaching (90 percent reduction by 2050) goal? Why put lofty goals out there if we don't think we'll hit them? We can't even find outlets for all our trash and recycling right now.

A: MassDEP has not yet finalized this goal as a proposed goal. However, this goal would be intended to be an aggressive goal to strive towards. MassDEP recognizes that, to achieve this type of zero waste goal means that we would need to capture virtually all materials that are recyclable, compostable, or recoverable and phase out most other materials from the waste stream. Achieving this progress will require significant new program policies in the short and intermediate term, as well as longer term changes.

C: It would be helpful to have the waste stream characterization data presented at all meetings. We don't need new technology to divert many materials that are currently going for disposal. It would also be helpful to highlight which of these materials are currently subject to waste disposal bans. I believe that once you look at what is in the waste stream, zero-waste is a practical goal. The vast majority of what is going for disposal can be diverted. We need to speed things up. We can do much better in this upcoming decade.

Q: What are some materials that may provide the best potential to meet the diversion goal for 2030?

A: Some examples are food waste, cardboard, textiles, and mattresses. Food waste represents approximately ¼ of our trash, and Massachusetts has established a good foundation and infrastructure for further reducing food waste. Cardboard is readily recyclable but is still disposed of in fairly large quantities by businesses and institutions. Massachusetts already has a strong reuse and recycling infrastructure for textiles which can readily absorb more materials, and Massachusetts has a steadily growing recycling infrastructure for mattresses.

C: What is the catalyst for change? Theoretically, everything we touch is recoverable. But human behavior and economics stand in the way. If the agency wants to regulate and enforce, we could get there. But the markets are very expensive. There is a gap between affecting these changes and where human behavior is.

C: Consumer behavior isn't necessarily the problem. There's a lot of pushback from industry on zero-waste initiatives.

C: It has been proven that education coupled with enforcement creates change. There has been a big increase in enforcement over the past ten years, but there still needs to be more waste ban enforcement and compliance.

R: MassDEP just hired a new waste ban inspector and is focused on increasing our waste ban compliance work to achieve greater diversion of materials subject to our waste disposal bans. In particular, this includes opportunities to divert and recycle more cardboard, food material, and wood, along with potential new waste bans for textiles and mattresses.

C: We have to consider the potential effect of solid waste facility closures on our goals. We want to move towards zero-waste, but we are following a ten-year plan that doesn't account for unexpected events. We want to ensure that public health and the environment are being protected and that trash has a place to go so that it will not be left out on the street uncollected. We have to consider the reliability of current infrastructure, whether we have alternatives in case something happens, and whether or not we're comfortable sending waste out of state via rail. Even if there is support for new legislation, it will take a few years to pass. Q: Why not aim for zero net-export by 2030?

A: MassDEP does not believe this would be a viable goal. Even if we were to meet the 2030 waste reduction goal that we have discussed, Massachusetts would still need to export waste for disposal on a net basis.

C: One possibility is that the state increases resources to advance trucking and establish resiliency with rail. This would make transfer options more viable.

C: Every day, haulers are looking for truck drivers, but no one wants to drive a truck. It would be helpful for the state to support increased training programs for truck drivers.

Q: Can the state partner with municipalities for waste ban enforcement? A: MassDEP does work with municipalities to implement mandatory recycling requirements, through which municipalities can enforce these requirements on the local level.

C: The goals presented seem far too aggressive given the recycling markets going upside-down. The solid waste industry observed doubled waste ban failure rates in the last 5 years. Now recycling costs are above disposal costs. Isn't it going to take a long time to develop local & domestic recycling markets to replace lost China capacity?

R: We are seeing quite a bit of investment coming in U.S. recycling capacity, particularly with respect to paper. In addition, national companies are making commitments to increase recycled content of their packaging to build demand. Markets will always fluctuate and MassDEP expects the demand for most recyclable commodities to rebound over the coming months and years.

Q: Waste-to-energy facilities are at capacity. Some landfills can increase capacity. I don't know anyone hauling waste out of state by rail, but could the state facilitate rail haul in any way? Or is it up to the state transportation board and CSX? How many landfills are equipped to handle rail? Where does it go?

A: A number of Massachusetts transfer stations either have rail connections now or are modifying permits to be able to increase transfer of waste via rail. Theoretically, every landfill can take rail at the back end. Either it gets delivered directly, or they can transfer waste via intermodal containers.

Q: Have you looked at what other states are doing?

A: Yes, MassDEP has held conversations with solid waste and recycling staff from all Northeast states and there is a lot of common ground between Massachusetts and other states. Some common themes include food waste reduction, bans on plastic bags and single-use plastics,

disposal capacity shortfalls, and interest in extended producer responsibility legislation, though other states are far ahead of Massachusetts on EPR legislation.

C: One of the problems with this conversation is that when you build a facility, it lasts for a very long time. So when you build disposal capacity, you're stuck with it forever. Many of the programs from the last plan never happened. This includes mandatory Pay-As-You-Throw (PAYT), an expanded bottle bill, and extended producer responsibility legislation. We need to set goals that are enforceable. A lot of companies are making a lot of money off of tipping fees. That is not going to go away. Without enforceable goals, nothing will change. MassDEP also needs more resources to implement waste reduction programs.

R: MassDEP is working to advance PAYT within our grant programs, however requiring PAYT would require a legislative change. Similarly, an expanded bottle bill and EPR requirements require legislative change.

Q: Would Massachusetts consider selling state-owned property to host a solid waste facility, if the permitting could be secured?

A: MassDEP generally does not own property, so this would likely need to be property owned by another state agency. Typically there are other demands and interest for this other state property. However, even if there were a viable state property that were available, such a facility would still require local approvals which typically stand in the way of most solid waste facility proposals.

C: Producers should think more about how to take back and reuse their own materials.

Q: Is Massachusetts willing to look at carpet recycling again? We have a new technology and can process all types of carpet. Illinois has a bill pending, passed in the Senate and is now in the House. We are hoping Massachusetts will be next. A goal of 50 percent reduction in the next ten years is reasonable.

A: MassDEP has engaged in discussions with potential carpet recycling ventures over the years, however we have yet to see a viable and cost effective facility be developed in the Northeast. Some of the challenges have been high residuals and low value materials. Typically this infrastructure has been developed in the Southeastern US, closer to large carpet manufacturers. However, MassDEP would be interested in talking further with any carpet recycling facility developer.

C: Regarding some of the conclusions made from the capacity study: The only meaningful capacity for organics is currently in co-mingled waste water treatment. There is a lack of capacity in anaerobic digestion (AD) that can create compost, which is a useful product. We need more composting capacity

R: In Massachusetts, most of the anaerobic digestion infrastructure is based on dairy farms. There also are a number of other facilities that accept food waste for either composting or animal feed. MassDEP has heard from anaerobic digestion and some compost facilities that they are looking for more material, suggesting that existing capacity has not been fully utilized. Compost facilities have faced local opposition due to odor concerns from nearby residents and development. MassDEP is considering developing a grant program for compost and intermediate food waste processing operations that could provide capital equipment to help them reduce odors, for example by enclosing certain portions of operations. MassDEP agrees that additional and more distributed capacity, either in the form of compost operations or intermediate organics processing facilities, is important to supporting a reduced waste ban threshold for food waste.

C: Wet AD is not a great end disposition for compostable paper, and residential food waste tends to be drier. Facilities such as dry AD have the ability to manage mixed residential food waste and yard waste can create high quality compost. Compost also helps with climate change resiliency. Dry AD produces a product that could be then sent to a composter.

R: Such facilities could be supported by Massachusetts grant and loan programs, but no such facility has been proposed in Massachusetts.

C: The town of Manchester received a \$400,000 grant to convert an existing yard waste site to incorporate food waste, but the project is still hung up due to additional costs.

C: A lot of cities and towns have former yard waste composting sites that could be improved and expanded to accept and compost food materials.

C: The city of Boston supports outreach and education, but the only thing that truly incentivizes residents to take materials out of the trash are monetary incentives such as deposits through the Bottle Bill.

R: PAYT programs provide a direct incentive to residents to dispose less and reuse, recycle, and compost more.

C: A county in California provides a tax refund for at-home composting. Minnesota does a similar thing.

C: One example that is a counterpoint to waiting for state-wide legislation is plastic bag bans. We've been waiting for state action on plastic bag bans for 15 years. Meanwhile, municipalities have taken action and passed their own bans. The public is ready to embrace zero-waste. This is a great example of a tangible accomplishment toward larger and more systematic change. That is something people can relate to and put stock in. C: Existing systems have direct environmental justice implications. People have been disproportionately bearing these costs for a long time. This should be considered in the Master Plan.

C: As a hauler, our obligation is to get material off the streets today. Companies are not going to sit around and hope for the best; they are going to develop additional trucking and rail capacity to address waste management needs. Rail haul is happening today. The market will figure out how to solve the near-term problem.

C: There may be elements within MassDEP's control that facilitate, or at least do not hinder, increased rail capacity.

C: People are starting to get that none of our trash really goes "away" i.e., ocean plastics. That is where the public support is coming from.