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Response to Public Comments on the Draft 2030 Massachusetts Solid Waste Master Plan

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General Comments and Goals

Goals

1. Comment: The review process of the SWMP has been brief and has done little to encourage public engagement. None of the hearings were held later than 5 pm, which made it difficult for people with day jobs or children to attend. Lower-income families are typically unable to take time off from work or negotiate childcare to make time to attend a daytime public meeting. The location of the hearings also limited the public's access, as they were not spread broadly enough, particularly in Western Massachusetts. Only one of the meetings (Springfield) was held in a community which houses an incinerator or landfill. This makes it harder for those most affected by the waste stream to participate in the process. MassDEP must conduct more public outreach and education so that the hearing process can fulfill its purpose of receiving public input, and consider a second round of public hearings, at least.

Response: In the fall of 2019 MassDEP provided opportunity for input into the Draft Plan by holding five public hearings at different locations around the state including four evening hearings. MassDEP kept these evening hearings open until 7:00 to allow for people to attend and testify outside of normal business hours. MassDEP also accepted comments via email or mail. MassDEP delivered a summary presentation on the Draft Plan at each hearing and posted an in-depth webinar presentation on the Draft Plan on MassDEP's website. Prior to the formal public hearing process, MassDEP held 35 meetings with stakeholders to seek input into the Draft Plan, including Solid Waste Advisory Committee (SWAC) meetings, SWAC Subcommittee meetings, and other stakeholder meetings. MassDEP also engaged in direct conversations with SWAC formal member organizations to obtain input into the Draft Plan and offered a Survey Monkey survey to provide input early in the process.

Over the summer of 2020, MassDEP reissued the Draft Plan for public comment offering another opportunity for input by holding 4 additional public hearings, all at night. MassDEP accepted additional comments at the hearings, via email or mail for the duration of the public comment period.

Going forward, MassDEP will be developing and updating a series of Action Plans to implement the 2030 Solid Waste Master Plan and will continue to engage stakeholders throughout this process. We believe that this process will provide extensive opportunities for sustained stakeholder engagement, enabling people to participate in the discussions of the topics that have the most relevance to them. MassDEP will partner with stakeholders to enhance outreach to broaden public participation and engagement in these Action Plans, with a particular focus on environmental justice communities and dis-advantaged populations, to guide implementation of the Master Plan.

2. Comment: MassDEP received many comments stating that the overall waste reduction goals are not aggressive enough. Commenters also argued that these goals should be more front loaded to be more aggressive by 2030, rather than setting even waste reduction goals by decade. The commenters indicated that this would make more sense as the initial 30 percent reduction should be easier to achieve than the final 30 percent reduction. These commenters recommended more aggressive goals – such as 10-year targets of 70% diversion by 2030, 80% by 2040 and 90+% by 2050. MassDEP should show some bold vision to get serious towards zero waste. The European Union Circular Economy Package is a good example of a zero-waste plan

framework and goals combined with supporting strategies. This schedule may require creating a policy infrastructure that reduces the Commonwealth's dependency on disposal, particularly combustion with its myriad ills.

Response: MassDEP sought to set the most aggressive goals while still being achievable. MassDEP believes that more front-loaded goals would not be viable as many of the infrastructure, statutory, policy and cultural changes needed to achieve this additional waste reduction will take more than a decade to establish and implement. MassDEP also believes that due to recycling, composting, and waste reduction progress achieved to date, there is much less "low hanging fruit" than there was a decade ago. A new element of the 2020-2030 Plan calls for a program review in 2025 and MassDEP expects to work closely with stakeholders to develop and periodically update separate Action Plans for key program areas, including, source reduction and reuse, organics waste reduction, C&D waste reduction, and market development.

3. Comment: Other commenters stated that the goal of reducing disposal to 570,000 tons (90% reduction) by 2050, along with the interim 2030 goal are without foundation. As noted in the Plan, the 2020 goal was not achieved. And the draft SWMP does not detail significant changes in programs or activities. While in 30-year horizon new technologies could impact the results, the goals appear to be aspirational. MassDEP has not done analysis of why the previous goals were not met and has not presented a clear strategy, including policies, staffing, and budget for how the 2030 goals will be achieved. The Plan also has no teeth to ensure that goals are met.

Response: MassDEP provided an overview of waste reduction progress, status, challenges and opportunities in the Introduction and Background section of the Draft Plan. MassDEP believes that the proposed goals are aggressive, yet achievable. Appendix B of the Plan provides an extensive analysis of additional diversion opportunities by material category that has informed MassDEP's 2030 and 2050 waste reduction goals. MassDEP's programs and policies in the 2030 Solid Waste Master Plan are tied to achieving these additional diversion opportunities. The Master Plan is a policy document and, therefore, is not enforceable, however MassDEP will be proposing regulatory changes and increased enforcement to implement elements of the plan. MassDEP will be creating several Action Plans describing specific actions for implementing and attaining the waste reduction goals.

4. Comment: The Plan should couple the aspirational, long-range goals with practical near-term (1-year) goals that allow the Commonwealth to manage infrastructure, innovation, and other market developments in a nimble and achievable manner. This would be a better approach than an across the board 90% reduction goal for all materials targeted (see appendix B). From our perspective, past Plans are antiquated the day they are released and become a stagnant document.

Response: MassDEP agrees that ongoing implementation planning is needed to adapt to changes over time. That is why MassDEP has proposed developing and maintaining sector-specific Action Plans between now and 2030. MassDEP already has Action Plans for organics and construction and demolition debris materials that we update periodically. MassDEP Plans to develop additional Action Plans for source reduction and reuse and market development and will consider developing additional Action Plans as needed.

5. Comment: *"The building blocks for a zero-waste future are in our hands today."*

Can MassDEP outline what the zero waste building blocks referenced in the Plan are and what the capacity is within each of these systems today that can reach the targets outlined in the Plan? If this is listed in another report, you can simply point us to that report.

Response: These building blocks include MassDEP's existing regulations and policies; grant and assistance programs; data collection, reporting, and evaluation systems; inspection, compliance, and enforcement initiatives; widespread and extensive public and private infrastructure; and significant waste reduction, recycling, composting, anaerobic digestion, and reuse progress that has already been achieved. One piece of information that helped feed into some of the objectives in the SWMP was the Materials Management Study completed in February 2019 which clearly identified excess capacity to divert organics and construction and demolition materials from disposal. Utilizing this excess capacity may result in significant diversion as identified though the targets set in those material categories in the Plan.

6. Comment: On page 4, it says 2,000 pounds per capita, is that supposed to be per household?

Response: This statement is on page 2 of the Draft Plan and is correct as written.

7. Comment: Does MassDEP have a sense of what the process will look like for Action Plans? We have not seen this take place to date and agree this kind of process would be extremely helpful in the creation of a "nimble" Plan that takes incremental action to get to long-term goals. Is this intended to be covered by the SWAC in the future? We request that MassDEP develop a more detailed Action Plan specifically for reducing the use of single-use packaging and advancing EPR and/or product stewardship systems for specific products. We also support inclusion in the Plan of specific language limiting or ending the use of hard-to-manage products and materials such as plastic bags, single-use plastic bottles, and Styrofoam and similar products. Specific mention of these product categories is currently absent from the Draft Plan.

Response: The best examples of these Action Plans are MassDEP's Organics Action Plan and Construction and Demolition Debris Action Plan. These were developed working closely with external stakeholders to obtain input through SWAC Subcommittees. MassDEP proposes to continue working on these Action Plans while establishing additional Action Plans for Source Reduction & Reuse (R&R) and Market Development. We believe that some of the issues referenced in this comment may be addressed through the R&R subcommittee. MassDEP will consider developing other Action Plans as needed between now and 2030 but will prioritize those identified at this time. MassDEP added a section in the SWMP explaining its intent to utilize Action Plans to broaden stakeholder engagement and transparency with a particular focus on environmental justice communities and disadvantaged populations.

8. Comment: The Commonwealth should consider a comprehensive materials management bill which incorporates realistic and achievable metrics and standards, infrastructure development and funding.

Response: MassDEP outlined several legislative initiatives in the Draft Plan for consideration. However, this is a matter for the Legislature and other stakeholders, working in concert with MassDEP, to determine whether these should be advanced as one large bill or in multiple, more focused legislative proposals.

9. Comment: The Governor should create a Task Force with key leaders from across the Commonwealth with diverse backgrounds—industry, government, business, education, social—

whose mission is to provide public policy advice to ensure the Commonwealth has a resilient materials management system well into the future. The Task Force could encompass broader, related issues such as climate change. This group would be separate and apart from the Solid Waste Advisory Committee as administered by DEP which primarily consists of industry professionals and advocates.

Response: MassDEP is specifically tasked through the general laws (M.G.L. c.16, s. 21) to develop a Plan for managing solid waste in the Commonwealth. In doing so, MassDEP coordinates many activities that have complementary environmental benefits such as the success in developing anaerobic digestion systems for managing organic waste and creating renewable energy. The SWAC is the primary mechanism for MassDEP to obtain input on materials management policy and programs, and it has a broad membership representing many organizations. MassDEP will be seeking to expand the membership of SWAC to further diversify the entities, interests and communities represented.

As noted in the Plan, MassDEP will be conducting a program review in 2025, which will explore the potential to establish a declining cap on carbon dioxide emissions from municipal waste combustors. In addition, MassDEP will explore the feasibility of further reducing nitrogen oxides emissions from municipal waste combustors through its membership and work with the Ozone Transport Commission.

10. Comment: MassDEP should commit to at least the following metrics in the 2020-2030 SWMP through 2030:

- Waste characterization of all solid waste, not just at municipal waste combustors.
- Track pounds per person per year of municipal solid waste disposed of for the residents of Massachusetts, both including C&D and excluding C&D every year. This is the best measure of progress toward a circular economy, is easy to track and communicate to the public, and incorporates waste reduction, reuse, and consumption activities.
- Require all municipalities to report their waste totals to MassDEP, as most already do, per the survey on the MassDEP website below.
- Require that large institutional, commercial, and industrial sector to report disposal totals to MassDEP.
- Require Material Recycling Facilities, transfer stations, composting, anaerobic digestion, and other recycling facilities to track the amount of material diverted to their facilities, and the percentage of that total that gets processed for recycling or in an anaerobic digester/composted vs. disposed as residuals.
- Publish data and a report documenting developments by June 30th of the following year (for example, the 2020 report would be due by June 30, 2021).

Response: Much of this data is already gathered and published. MassDEP has provided bulleted responses to each point made above.

- MassDEP believes that the waste characterization studies conducted at Massachusetts municipal waste combustors give a generally reliable indicator of municipal solid waste composition since over 70% of municipal solid waste generated in Massachusetts is disposed of through municipal waste combustors. MassDEP has also paid for and published a consultant study on C&D waste characterization that is available on the MassDEP web site.

- Tracking of municipal solid waste generated on a per capita basis can be done with existing MassDEP disposal data.
- MassDEP receives a high rate of reporting from municipalities (285 of 351 in 2019) now and does not believe that requiring reporting from other municipalities would be very productive. Some of the municipalities that do not report are municipalities that do not provide solid waste and recycling services to their residents and therefore do not have such data.
- Data collection from all businesses and institutions would require a large resource commitment from both MassDEP and businesses and institutions when there are other sources of data that provide MassDEP sufficient data on this sector for policy and regulatory purposes. Obtaining data from other sources, including solid waste, recycling, composting, and anaerobic digestion facilities is a more efficient means of obtaining the data we need. MassDEP does request information from individual businesses to verify waste ban compliance when necessary.
- These facilities (Material Recycling Facilities, transfer stations, composting, anaerobic digestion, and other recycling facilities) are all already required to submit annual reports to MassDEP with this information.
- MassDEP will strive to meet this timeframe, however it is not always possible, in part because some of the data in this report involves cross-checking data with other states whose data may not be readily available within this timeframe.

11. Comment: MassDEP should address climate change and carbon emissions in the SWMP and develop concrete steps for contributing positively to both issues. DEP should consider climate impacts on all decisions and attempt to quantify carbon savings through plastics use reductions and reductions from burning plastics and tires, whether in state or out of state. DEP should include in the SWMP an analysis how waste management ties into the Global Warming Solutions Act.

Response: MassDEP has included information on the greenhouse gas reduction benefits associated with Massachusetts waste reduction activities in the Final Plan. The current GWSA calculates and tracks in-state emissions. Solid waste emissions are included in this calculation but many of the external green-house gas benefits of recycling occur out of the state/country.

12. Comment: Massachusetts should develop a Marine Debris Reduction Plan (as Virginia has done – see <https://www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMIssuesInitiatives/MarineDebris.aspx>). This would involve 1) identifying the items Massachusetts is contributing to in the marine environment (these would be items found in Massachusetts coastal areas as well as Massachusetts rivers that flow into coastal areas of Rhode Island, Connecticut, and New York) and 2) prioritizing actions to reduce those items. Massachusetts could participate on the national level as well. We recommend that MassDEP also look to the European Union’s plastic strategy as a possible way to move forward.

Response: MassDEP’s focus on the Solid Waste Master Plan is to ensure that Massachusetts has adequate capacity to manage our solid waste, including waste disposal and transfer capacity, but also capacity for recycling, composting, anaerobic digestion, and reuse. We believe that ensuring an adequate waste management system, including trash and recycling containers and

collection in public spaces is the best approach we can take to reduce litter into the environment. This can also be bolstered by local and legislatively driven efforts to eliminate or reduce use of single use packaging that winds up in the marine or terrestrial environment.

13. Comment: Toxics reduction needs to be considerably expanded in the Plan. MassDEP should support regulation or legislation to ban the use of PFAS in food packaging since it adds toxics to the compost and trash streams. MassDEP should support regulation or legislation to ban the use of bisphenols in thermal receipts and business forms since these add toxics to the compost and trash streams. MassDEP should include LED light bulbs in the hazardous waste ban. These could be treated in similar fashion to e-waste since the materials are similar. Include non-stick cookware that contains PFAS in the hazardous waste ban. This could include extended producer responsibility. This material needs to be stored until safe destruction methods are available. Consider including OTC pharmaceuticals, cosmetics, and health and beauty products that are liquid or semi-solid in the same program as prescription drugs. This will reduce the toxicity of the trash streams and improve water quality. In order to reduce the amount of pesticides from the food and yard waste streams, the state needs to restrict more classes of pesticides to registered applicators only, and to encourage natural and organic farming, gardening, and landscaping.

Response: MassDEP agrees that reducing the toxicity of the waste stream is an important goal. MassDEP has highlighted additional program information on toxicity reduction into the Residential Waste Reduction section of the 2030 Plan. Toxics from businesses are addressed through other programs and regulations, including hazardous waste regulations and the Toxics Use Reduction Act program. As legislative and regulatory options are introduced to manage toxics in our environment, MassDEP, where appropriate, will engage in those discussions. Pesticide use is overseen by the Department of Agriculture (DAR). DAR promotes organic farming, natural landscaping and gardening and Massachusetts produce through its own programs.

Source Reduction

1. Comment: Enact a state law banning all Styrofoam cups and food containers, as well as other single use plastic food service products such as plastic cutlery.

Response: MassDEP has maintained the commitment to work with the Legislature and other stakeholders on an approach to reduce use of single use plastic packaging in the Final Plan. This could include plastic bags, as well as other single use packaging, including straws and Styrofoam food service containers. Any effort of this nature would need to be addressed through the legislative process.

2. Comment: We recommend that MassDEP consider studying and making Plans to address the effect of e-commerce home delivery on waste production, and opportunities for waste reduction and recycling.

Response: MassDEP has been in communication with the packaging industry to understand trends in packaging and how these will affect the waste stream going forward. MassDEP will continue to monitor these trends and consider connections to Massachusetts recycling and waste reduction programs.

3. Comment: The Plan states that despite an increase in economic activity and population, tonnage of trash has decreased. While we do not really know why this has happened, it is likely due to a continued decrease in the generation of newspaper, a heavy material, and a proliferation of plastic, a lighter one, not due to less wastefulness on the part of residents, businesses, and institutions. Has DEP compared the trend in-state to the national trend? If it is not something that the state or communities can take credit for, then we need to be thinking about how to make our programs more effective.

Response: To clarify, Massachusetts waste disposal has decreased by 14% during a period when Massachusetts' gross state product grew 46%. Typically, waste disposal tracks in line with the economy, so this suggests substantial waste reduction has taken place. MassDEP does not have data to explain what specific factors contribute what amount to this reduction. However, we believe it is a combination of national trends, including packaging changes referenced in the preceding comment, as well as Massachusetts specific changes, including reuse, source reduction, and recycling options such as food waste tracking and reduction, building material reuse stores, and growth in textile reuse and recycling programs. In the Final Plan, MassDEP has committed to launching an initiative to work with leading academic and research institutions, as well as other stakeholders, to identify innovative strategies and approaches to further our waste reduction progress. As part of this effort, MassDEP will create a \$1 million grant program to invest in recycling and waste reduction innovation.

4. Comment: In order to successfully and sustainably reduce and reuse materials, the Commonwealth needs to create robust educational programs to support clean recyclables and the diversion of materials that already have recovery outlets. Currently recoverable materials are still being thrown away (i.e., plastic bags/film, glass, cardboard, food waste, various plastics).

Response: MassDEP is committed to growing recycling education efforts and initiatives, particularly through MassDEP's RecycleSmart and Recycling IQ initiatives. MassDEP will be working with stakeholders to identify education and outreach strategies for reuse and waste reduction opportunities as part of the Reduce and Reuse Action Plan. These education and outreach strategies will be combined with MassDEP's ongoing waste ban enforcement efforts.

5. Comment: Could MassDEP establish goals by sector based on known material characterization to assist in reduction strategies?

Response: MassDEP identified priorities by material category in the Draft Plan and these have been maintained in the Final Plan. These are highlighted on page 9 of the Final Plan, with more detailed analysis provided in Appendix B. MassDEP will also consider establishing priorities for residential versus commercial opportunities and, where appropriate, may develop goals or targets for specific business sectors. Further refining of strategies for specific materials through the Action Plans will certainly identify major generators of these materials and how to engage them in better waste reduction efforts.

6. Comment: Commenters expressed support for a number of proposed source reduction and reuse initiatives, including:
 - a. Support incentives for companies to gain technology and machinery to rewash their jars and bottles.
 - b. Efforts to promote reuse and repair.

- c. Increased use of dishwashers in businesses, institutions, and schools to reduce use of single use food service ware.
- d. Increased use of reusable containers for shipping and distribution.
- e. Address reuse, repair, and product durability through state contracts.
- f. Use tracking and data to increase efficiency and reduce waste in business operations.
- g. Create an online calculator to quantify the benefits of reuse/repair/ sharing over disposal and purchasing new products.
- h. Develop model state and local policies to advance source reduction and reuse, particularly for building deconstruction.

Response: MassDEP acknowledges the support of these initiatives included in the Plan.

- 7. Comment: Eco-Building Bargains on p. 18 should be changed to omit the hyphen (EcoBuilding Bargains).

Response: MassDEP has made this change.

- 8. Comment: The Plan is not aggressive enough in documenting specific ways that single use packaging will be reduced. It should not be left to the consumer to make purchasing choices when there is no alternative. MassDEP can put together a program to evaluate banning items or promoting EPR. We recommend the SWMP add a strategy table such as that articulated by the European Union and develop a specific action Plan for reducing single use packaging. This should include a statewide ban on single-use plastic shopping and non-compostable product bags.

Response: Specific proposals that prohibit packaging or products need to be addressed through the legislative process. However, MassDEP agrees that phasing out of single use plastic bags makes sense both because of their contribution to litter and in the marine environment as well as the fact that they are a contaminant and problem material in existing recycling facilities.

- 9. Comment: The Plan should include support for right to repair policies for electronics, as well as to encourage increased product warranties.

Response: MassDEP is supportive of initiatives that will increase product lifespan through improved product durability and increased ability to repair products. These initiatives will be discussed further in the development of the Source Reduction and Reuse Action Plan.

Extended Producer Responsibility

Bottles

- 1. Comment: Several commenters expressed support for an expanded bottle bill, including potentially adding all glass containers, nips, and water bottles.

Response: MassDEP acknowledges that there are both challenges and opportunities with the bottle deposit system to potentially divert and capture more and higher quality materials.

These issues should be explored further, and it should be noted that legislation would be required to institute any significant changes to the system.

2. Comment: We want to explore ways to collaborate with MassDEP through industry's new commitment to recycling called the "Every Bottle Back" initiative, which will be pursued in conjunction with the World Wildlife Foundation, The Recycling Partnership, and Closed Loop Partners. The initiative will (1) measure industry progress on reducing the use of new plastic; (2) improve the quality and availability of recycled plastic in key regions through investments in improved sorting, processing, and collection systems; (3) launch a public awareness campaign on the value of 100% recyclable bottles, and (4) reinforce the message of recyclability to consumers directly on packaging. Through this initiative, industry will be working across the country and investing millions of dollars to donate recycling bins and improve recycling systems and infrastructure, and we hope to put some of that to work here in the Commonwealth of Massachusetts. Every Bottle Back strives to tackle many of the challenges described in the draft Solid Waste Master Plan, from diversion to driving recycling market growth. Additionally, our member companies are striving to meet their own aggressive commitments to reduce waste and the use of new plastic and recycle more.

Response: MassDEP is always open to discussing ways to collaborate on initiatives in Massachusetts that promote increased waste reduction.

3. Comment: EPR is not, by itself, a panacea for better recycling. The underlying infrastructure needs to perform at a high level and the governance and funding of the system need to be structured properly to ensure efficiency, accountability, and equity. For example, establishing EPR alongside an existing deposit return system has significant implications for the cost, efficiency, and convenience of both systems. A close examination of the performance of the current bottle deposit law, established more than 35 years ago, will be critical when evaluating better material recovery systems for the Commonwealth. The outdated deposit law costs \$50 million to operate each year and is showing a declining trend in redemption rates. We would welcome a discussion around the most effective ways to collect and recycle our containers and more, recognizing the unique issues posed by glass and that a dedicated glass recovery program may be necessary.

Response: The Plan does not propose an EPR system for bottle deposit containers in addition to the current bottle redemption law. However, MassDEP believes that properly structured EPR systems may lead to more efficient and effective systems for managing products and packaging after use, as well as shifting management costs away from cities and towns.

4. Comment: MassDEP should consider a legislative approach that would establish a temporary producer fee on all beverage containers to fund recycling programs and infrastructure and then phase out the bottle deposit law as investments are made. This would allow municipal recyclers access to the most valuable materials in the recycling stream like aluminum and glass. Other commenters suggested expanding the current bottle deposit system to cover all glass containers, as these containers represent a cost to municipalities and are a low value and low-quality material when managed through recycling facilities. Glass may be better managed through a separate collection system like a bottle deposit system.

Response: Even with declining redemption rates, the bottle bill system still achieves higher recycling rates than other systems and successfully reduces litter. A temporary producer fee

does not address the ongoing management costs of recycling which are borne by municipalities providing solid waste services to residents. Glass collected through single stream recycling generally has higher levels of contamination than glass collected separately, which increases processing costs and reduces potential market outlets.

5. Comment: We would love to see a stronger focus on the reduction of single-use plastics. Massachusetts should extend efforts to pass Extended Producer Responsibility into more categories than currently proposed, such as beverage containers.

Response: The Massachusetts Bottle Deposit System is a producer responsibility system. The beverage industry is responsible for financing and operating the system. MassDEP is open to working with other stakeholders on potential EPR systems in general, and specifically identified paint, mattresses, packaging, and electronics in the Final Plan.

Other

1. Comment: MassDEP should consider partnering with the packaging and retail sectors to implement a return to retail program like WRAP. This program encourages residents to return film to participating retailers. In Connecticut, WRAP is helping the state meet its 2024 goal of diverting 60 percent of material from landfilling. A public education and consumer outreach program in Greater Hartford resulted in an 11 percent increase in bags brought to store collection and 7 percent of other plastic films (e.g., bread bags, dry cleaning bags, etc.) Contamination of items collected decreased by 23 percent and public awareness about what to take back to retailers grew. There was a 10 percent increase in the number retail customers that reported that they “always” or “most of the time” take film back to retail collection to be recycled.

Response: MassDEP is always interested in hearing about new programs that may effectively eliminate or divert waste from disposal. The SWMP highlights the importance of working to eliminate or recycle single-use packaging, supporting the development of producer responsibility approaches to difficult materials, and educating and engaging the public in individual actions that can assist in reducing waste. As part of the implementation of the SWMP, MassDEP will be forming a number of subcommittees of the SWAC to drive the development and implementation of Action Plans to identify how to reduce, reuse and recycle materials including plastic films and how to educate and inform the public.

2. Comment: Perhaps the concept of zero waste does not seem attainable. We suggest that the concept of a circular economy could be beneficial as a way of looking at it. There could be ways of businesses and the economy working at every step of the way. The current system in which companies make an enormous profit selling products that requires the public, government, and private entities to spend significant resources to dispose of does not make sense. MassDEP needs to be a key player in shifting the costs away from municipalities, the state, and individuals. Even if MassDEP cannot pass legislation, it can provide the public better justification and incentives to create extended producer responsibility (EPR) programs, and it can incentivize recycling, as MassDEP has done for mattresses. Where single use plastics can't be eliminated, recycling should be increased.

Response: The SWMP outlines how the Commonwealth and MassDEP will provide information, assistance, resources, and incentives to help advance waste reduction and recycling across a broad audience. Reducing waste and fostering recycling has economic benefits to the

Commonwealth. The Plan establishes aggressive goals which will require collective efforts on behalf of residents, municipalities, businesses, state government and the legislature to achieve.

3. Comment: Most of what is now considered consumer waste should be dealt with through EPR programs that put the responsibility of disposal or recycling back to the producer. This is true for the beverage industry, the snack industry, and the electronics industry. The Master Plan should establish EPR goals, provide a clear explanation of extended producer responsibility, possible programs, and the benefits of EPR to municipal governments and taxpayers. MassDEP should outline the process by which the MassDEP will educate the Massachusetts Legislature on the need for EPR. An important consideration for the EPR issue in Massachusetts is ultimately about “who will pay” and correspondingly “how they will pay” to make the system for post-consumer management of materials and wastes work in the future. Historically municipalities, citizens, institutions, and businesses have paid the companies in our industry for these services through local taxes or other local financing models or simply by paying the bill directly for the services rendered.

Response: MassDEP agrees that EPR systems can provide important benefits such as reducing municipal and taxpayer costs and burdens, improving collection, and recycling systems and reducing disposal of targeted materials and products.

4. Comment: In a “uniquely fantastic intergovernmental public-private partnership,” we have built a tremendous waste, organics, and recycling system in MA over the last 4 decades, essentially without EPR. Millions of tons of recyclables and organics have been recovered and reused and continue to be so managed. The irreducible volume of municipal solid waste that remains at the same time has been sent, and continues to be sent, to permitted state-of-the-art WTE and landfill disposal facilities—both in-state and out-of-state. The current recycling system is working well today and is expected to work well tomorrow.

Response: Massachusetts does have a very strong recycling infrastructure, but as the Plan lays out it, will require an even greater more comprehensive approach to reach the aggressive disposal reduction goals in the Plan. This means not only increasing recycling, but reducing waste generation, managing materials more efficiently and engaging all parties in the common objective of reducing waste to the greatest extent possible.

5. Comment: Companies should be required to use recyclable/biodegradable materials for packaging their products. Once companies are held accountable for the product packaging to be made of completely or mostly recyclable/biodegradable materials, the problem will be greatly reduced.

Response: MassDEP is open to working through the legislative process with other stakeholders on proposals to improve packaging recyclability, recycled content, and biodegradability to help support recycling markets and overall Plan goals.

Organics Waste Reduction

Food Waste Ban

1. Comment: Many commenters expressed support for lowering the proposed waste ban threshold for commercial organic material from 1 ton to ½ ton per week. However, many stated that MassDEP should also establish a timeline to enact a disposal ban on all food material from both commercial and residential sources. Commenters proposed this by 2022, 2026, 2028, and 2030, or by another date established by MassDEP. Commenters also suggested an interim date of 2021 or 2024 for banning disposal of food material from all businesses. That will increase jobs and revenue and create a new industry for composting in this state.

Response: MassDEP believes that a waste disposal ban is a good approach to reduce disposal of food from businesses and institutions that dispose of ½ ton or more per week. MassDEP has published final regulations that set an effective date of November 1, 2022 for this waste ban. However, we do not believe the infrastructure is ready to support a ban on smaller food waste generators at this time. Furthermore, a waste disposal ban may not be the best approach to reduce food waste from smaller sources, as this is difficult to implement for smaller sources. MassDEP will consult with stakeholders in assessing progress in reducing food waste as part of the 2025 Program and Policy Assessment called for in the Final Plan. This will include consideration of banning all organic waste from disposal by 2030.

2. Comment: If households are required to compost garbage, there will be health costs in the form of having increased rodent infestation.

Response: As mentioned above, MassDEP needs to see the infrastructure and systems expand and mature before requiring residential food waste composting. MassDEP is working with cities and towns and other stakeholders to reduce residential food waste on a voluntary basis. Working with businesses, we have found that separate food waste collection can result in reduced odor and pest concerns, as that material may be managed better and more cleanly when separated than when mixed with the trash.

3. Comment: Other commenters questioned whether there is adequate capacity in place to support lowering the food waste ban threshold at this time. This change will increase the need to pre-process and transfer organic streams from population centers to regionally (rural) located processing facilities (AD and compost). In addition to composting, anaerobic digestion, and processing capacity, it is also important to have sufficient collection infrastructure to ensure sufficient route density and ensure a cost-effective collection system across all areas of the state. MassDEP should engage in additional stakeholder discussions around these issues.

Response: MassDEP believes there is more than adequate capacity to accept food material that would be subject to a reduced one-half ton per week disposal ban threshold on a statewide basis. There may be areas of the state where capacity is more limited and hauling distances are longer for food waste. In those cases, there may be a need for more locations, particularly for de-packaging or intermediate processing facilities that can prepare food material in a slurried form to be hauled longer distances to anaerobic digestion facilities that are seeking more material. MassDEP has published final regulations that provide a one year lead time before the effective date of November 1, 2022 to allow additional infrastructure investment to happen.

4. Comment: Can MassDEP clarify if it intends to use quantities of food waste “generated” as opposed to “disposed of” to determine which entities are subject to the commercial organics waste ban? A commenter also raised questions about how this ban would be implemented relative to public schools.

Response: The ban threshold is defined as the amount of food material sent for disposal on a weekly basis. MassDEP has estimates for food waste generation by sector, including for public schools. MassDEP would work directly with public schools potentially subject to the ban to establish programs to reduce their disposal, including potential grants for equipment and technical assistance.

5. Comment: The state should support the tracking and reporting of food waste generation by food businesses. This practice helps encourage businesses to reduce food waste.

Response: MassDEP encourages businesses to track their food waste and, in turn, implement practices to reduce food waste generation in their food service operations. MassDEP will continue to promote these practices through the RecyclingWorks in Massachusetts program. Under current MassDEP regulations, MassDEP does not require individual business tracking and reporting of waste and recycling because we believe this would be burdensome for both regulated entities and MassDEP. MassDEP believes that we can effectively monitor compliance through direct, targeted information requests to businesses, technical assistance and outreach, and ongoing waste ban inspections and enforcement.

Food Donation/Rescue

1. Comment: MassDEP should work with grassroots efforts to demonstrate that the EPA Food Recovery Hierarchy, when followed, eliminates the need for a commercial food waste ban of one ton per week. MassDEP should support food donation through increased education for business owners about the benefits of food donation and through explicit guidance from the Department of Public Health (DPH).

Response: MassDEP supports working with businesses to provide food that has been safely handled and stored and is good to serve to food donation and rescue outlets. Through the RecyclingWorks in Massachusetts program, MassDEP worked with state and local public health officials to establish best practices for food donation that are consistent with the state food code.

2. Comment: The cost of transporting food from the donor to a food recovery organization is difficult for food donation organizations to cover and this is not a sustainable model. The state should support this work through prioritizing funding for infrastructure development and technical assistance.

Response: MassDEP works with interested businesses and institutions through the RecyclingWorks in Massachusetts program to establish food donation programs with food recovery organizations. MassDEP may be able to offer limited grants to support some capital costs associated with food donation and recovery efforts. For example, MassDEP recently awarded a grant to Lovin Spoonfuls to expand their food rescue collection. MassDEP provides a link on its website to RecycleWorks for food donation resources.

3. Comment: When food pantries receive expired/overripe food, they are burdened with additional organic waste that they did not generate and now must pay a hauler to remove.

Response: MassDEP agrees that this is a potential concern. For this reason, MassDEP promotes and provides guidance to ensure that any food delivered for food donation has been stored and handled properly to ensure food safety. Food donation organizations also need to communicate with potential donors to ensure that they receive the quality of food donation they are seeking.

Organics Capacity and Markets

1. Comment: There is a need to increase investment in local and regional composting capacity, small AD facilities, dry AD facilities, and intermediate processing facilities, particularly in certain areas of the state. This infrastructure may need to be able to handle some degree of contamination. The state will need to be creative about finding locations that would be suitable for composting –municipal yard waste sites and state-owned land may be appropriate. Changing local zoning ordinances and continuing to provide technical assistance to compost operators may encourage more composting operations near population centers. Making the permitting process easier for food waste collection companies to leave food waste at transfer stations would also help.

Response: MassDEP does not directly develop facilities, but rather establishes regulatory requirements for overseeing those facilities. MassDEP does not strive to foster one particular type of organics processing facility; rather we will approve any facility for source separated organics that meets our regulatory requirements. MassDEP does not have any role with local zoning regulations, though we have provided composting training sessions for local public health officials that may be involved in overseeing composting operations in their communities. MassDEP is currently reviewing its solid waste regulations and is considering revisions that more effectively govern food waste handling and processing. MassDEP will prioritize our financial and technical assistance to support entities seeking to develop the organics diversion infrastructure.

2. Comment: Massachusetts can lead by example to build markets for compost through environmental procurement guidelines and policies that require the purchase of compost, and specify that compost be purchased locally, which helps minimize transportation and drives demand in the local market. This should address purchasing by both state and local agencies.

Response: The Massachusetts Operational Services Division (OSD) has contracts in place for the purchase of compost products by state and local government agencies. MassDEP will work with OSD and other state agencies to increase awareness and promote use of these contracts. The Final Plan includes a commitment to establish a State Agency Recycling Market Development Council. This Council, which will be chaired by the Executive Office of Energy and Environmental Affairs, will bring together Secretariats including Administration and Finance, Education, Housing and Economic Development, and Transportation. This group will focus on increasing the use of recycled materials in state building, construction, and renovation projects. Focus materials are expected to include asphalt shingles, glass, compost, office furniture, and tires.

3. Comment: The state should create a state-funded grant opportunity for farmers without access to manure that would enable the farms to purchase digestate from farms with anaerobic digestion (and surplus digestate) and would secure trucking from a contractor to deliver digestate. This would increase the soil health on those farms and build demand for more

digestate enable farms with anaerobic digestion. This would in turn enable those farms to accept more food waste for digestion. A program like this would make Massachusetts a leader in connecting food waste planning, soil health, renewable energy, and farm viability.

Response: MassDEP will consult with the Department of Agricultural Resources (MDAR) on the potential for this type of assistance program.

4. Comment: MassDEP should launch a composting school to train and develop professionals in proper composting operations including site planning, materials, and recipe management, and selling nutrient-stable compost. A Massachusetts Compost School might be a partnership between the Essex North Shore Agricultural and Technical School, Massachusetts Department of Environmental Protection, and MDAR.

Response: MassDEP offers compost operations training for compost site operators through the Recycling Works in Massachusetts program. That program also provides direct technical assistance to compost site operators. There may be opportunities to deliver additional training and guidance by partnering with MDAR and the University of Massachusetts Agricultural Extension.

5. Comment: MassDEP should oppose food waste processing in anaerobic digestion at wastewater treatment plants as a viable form of food waste diversion. The state should require that digestate materials from anaerobic digestion facilities at wastewater treatment facilities, including those that digest food waste, be regularly tested for additional contaminants, including PFAS, and that the state work with the agricultural community to create safe maximum contaminant levels for materials intended for agricultural use. There are concerns that this digestate, which is frequently land applied, may be contaminated and that spreading this material will contaminate the land, food, and water. This is not the best use of food waste, a potentially valuable local source of soil amendments when composted or digested separately from wastewater residuals.

Response: Currently regulations require industrial pretreatment programs for wastewater treatment plants that have a significant number of industrial facilities discharging into their systems. Pretreatment programs are intended to reduce contaminants reaching wastewater treatment plants, thereby reducing contaminants in effluent and residuals. MassDEP is working internally and with other agencies to evaluate the waste stream to identify PFAS and reduce or eliminate its presence in effluent and residuals. MassDEP has implemented requirements for testing for PFAS and other contaminants in wastewater residuals through its regulation of wastewater treatment facilities and land application of residuals. MassDEP regulates the land application of residuals and establishes limits for various parameters to address the risk to public health and the environment, including uptake in food crops. Through these programs and through a committee of stakeholders, MassDEP is evaluating PFAS in residuals and the need for potential measures to address it.

There are reported benefits to co-digesting food materials with wastewater residuals; food waste can further stimulate the digestion process, which can increase biogas generation and associated energy production thereby saving on treatment plant energy use. This increased gas production also results in less residuals that need to be managed. If residuals are landfilled, a significant portion of this biogas would not be captured and released into the environment as methane, a potent greenhouse gas. Currently, a relatively small portion of the food waste is co-

digested with wastewater residuals. As of 2018, Massachusetts had a total of 160,000 tons of food material going to anaerobic digestion, with most of that going to either farm based anaerobic digestion or a stand-alone anaerobic digestion facility. This is just over ½ of our total food waste diversion from the trash – 280,000 tons in 2018. Massachusetts has 10 anaerobic digestion facilities for food waste at the current time. About 32,000 tons (just under 8 million gallons) went to anaerobic digestion at a wastewater treatment plant, the Greater Lawrence Sanitary District (GLSD). Several other wastewater treatment plants have considered taking in food material to co-digest with wastewater residuals, but no others have implemented such systems yet.

6. Comment: MassDEP should consider forming a partnership with in-sink food processors (i.e., garbage disposals) and create subsidies or incentives to use those systems in commercial properties and large apartment buildings with space limitations.

Response: MassDEP would not form that type of partnership with a private entity seeking to promote its products. However, MassDEP acknowledges that in sink food processors, garbage disposals, or other systems may make sense for use in certain multi-family dwellings or businesses. Any use of these units should be reviewed with the local wastewater system operator before proceeding with purchasing or installing any equipment.

Education and Outreach

1. Comment: An aggressive education campaign is necessary to ensure that quality materials are collected and to ensure that people understand the value of diverting food and other organic materials to higher value uses.

Response: MassDEP agrees that education is important for successful food waste collection programs to ensure that programs receive the correct material, and that contamination is minimized.

2. Comment: The Plan should highlight the importance of large-scale advocacy campaigns to raise awareness and educate consumers about ways to save money and prevent wasted food. Consumers need to be educated about accurate expiration dates. Efforts should also be undertaken to standardize food label dates, including eliminating visible “sell by” dates, to reduce consumer confusion. There is no comprehensive national policy that regulates food date labeling, leaving consumers confused and sometimes even throwing away food that is still fresh.

Response: MassDEP will continue to coordinate with the Massachusetts Food Policy Council and Massachusetts Food Systems Collaborative to identify opportunities to coordinate with other state agencies and stakeholders on education around reducing food waste and understanding date labeling.

3. Comment: The state should also support municipalities in their efforts to design Plans to reduce food waste in their communities, either through local or regional approaches. The Plans should include outreach to residents about the importance of separating food waste and the options for diverting food waste in their community, including city sponsored curbside compost pick up, commercial compost pick up, compost drop-off sites, and town-sponsored backyard compost bins. Municipalities should also encourage composting and food rescue at schools.

Response: MassDEP supports municipal food waste reduction programs through the Sustainable Materials Recovery Program Grants. MassDEP recognizes that the best approach to reduce food waste may vary from one community to another and will work with municipalities to support programs that fit best in each setting.

4. Comment: MassDEP should create a satellite office of RecyclingWorks in Essex County or in the North of Boston area to support the foreseeable growth in organics diversion and recycling programs.

Response: MassDEP believes that the RecyclingWorks program is well positioned to deliver assistance to businesses and institutions throughout Massachusetts. The program will continue to focus on supporting food waste reduction programs as a top priority.

5. Comment: Residents should be educated to use compost products instead of synthetic fertilizers for lawns and gardens. Both public and private entities can apply compost to repair the degradation of ecosystems caused by human activities and variations in climate.

Response: MassDEP will reach out to the UMass Cooperative Extension and other stakeholders to discuss strategies for raising awareness about the benefits of using compost to improve soil quality and health. In addition, MDAR actively promotes natural and organic gardening and landscaping.

Other

1. Comment: The Master Plan should place a greater emphasis on the top of the food waste hierarchy by preventing food waste in the first place. This could include incentivizing measurement-based approaches to reduce food waste. The state could also require food waste prevention initiatives through state food service contracts.

Response: MassDEP agrees that there are more opportunities to reduce food waste at the source, particularly in commercial and institutional food service. MassDEP's RecyclingWorks program has developed guidance on source reduction of food waste and integrates this guidance into outreach and technical assistance when working with businesses to reduce food waste. MassDEP also will explore opportunities with the State Operational Services Division and Leading By Example program to integrate food waste reduction into state facility food service contracts.

2. Comment: MassDEP should classify organics (all food waste and compostable papers) as a recyclable material to reduce pollution and protect our land, air and water, and human health.

Response: This is already the case under Massachusetts solid waste regulations. Source separated materials are classified as recycled materials and are not considered to be solid waste materials.

3. Comment: MassDEP should bring back the position of Director, Organics Material Management/Composting Program.

Response: MassDEP supports organics diversion and management through efforts by multiple staff in its Boston and regional offices. In addition, MassDEP provides expert consultant assistance to composting operations through the RecyclingWorks program.

4. Comment: MassDEP should promote and support the collection of restaurant fats, oils, and greases for conversion into biofuels. This could start with grants for public school and public university cafeterias.

Response: MassDEP considers fats, oils, and grease as organic material and supports efforts to separately collect fats, oils, and grease through the RecyclingWorks program.

Residential Waste Reduction

Material Quality, Single Stream and PAYT

1. Comment: Commenters expressed support for a number of proposed initiatives in this section, including:
 - a. Work to increase the quality and reduce contamination in the residential recycling stream, including the Recycling IQ Kit and the RecycleSmart MA programs.
 - b. Promoting adoption of Pay AS You Throw Programs, in conjunction with Recycle Smart and the Recycling IQ Kit.

Response: These programs are highlighted in the final Plan.

2. Comment: MassDEP should analyze single stream vs. multi- or dual-stream recycling. We suspect that single stream has not been the panacea it was described to be and that it has led to increased contamination of recyclable materials. Also, it seems to be contrary to our carbon reduction goals to truck all of Springfield's recyclables to a single stream recycling facility in eastern MA when there is a dual stream Materials Recovery Facility right in Springfield. MassDEP's support and preference for single stream recycling should be re-examined. MassDEP should look at funding pilot programs that look at alternative collection methods, such as split or dual cart dual stream programs, and should discourage dual stream communities from going to single stream.

Response: MassDEP believes both types of collection systems can be effective and relies on municipalities to determine which collection system would be most successful in their community. Most material recovery facilities in Massachusetts have converted to single stream processing without any role from MassDEP. Apart from the Springfield MRF, most material collected via dual stream collection is delivered to a single stream MRF. There can be significant collection efficiencies with collecting recyclables in single stream carts via automated collection, and MassDEP has provided grants to municipalities that choose to go this route, but also provides grants to dual stream and drop-off collection programs. Single stream processing can achieve high quality standards and reach low contamination levels, however much of the material going to these MRFs is too heavily contaminated to begin with. MassDEP is focused on improving material quality and reducing contamination in all collection systems through the statewide Recycle Smart MA education initiative and locally through the Recycling IQ Kit. In addition, in the Final Plan, MassDEP has committed to launching an initiative to work with leading academic and research institutions, as well as other stakeholders, to identify innovative strategies and approaches to advance waste reduction and recycling systems. As part of this effort, MassDEP will create a \$1 million grant program to invest in recycling and waste reduction innovation.

3. Comment: MassDEP should require all municipalities to adopt bag-based PAYT or SMART programs within the next 5 years. If communities cannot reach a baseline diversion rate set by the state, they should be required to implement a PAYT program. The benefits are clear.

However, another commenter expressed concern with PAYT programs, stating they produce a recycling stream that is significantly more contaminated than non-PAYT communities. At a minimum, implementation of PAYT requires corresponding enforcement and education on proper recycling practices.

Response: MassDEP does not have the statutory authority to mandate that municipalities implement PAYT. MassDEP has consistently made support for PAYT programs a top grant priority and has established PAYT program status as a key factor for municipalities to qualify for MassDEP's Recycling Dividends Program and there are currently 153 municipalities with a PAYT program. MassDEP agrees that PAYT programs should be accompanied by extensive education and outreach and work best when convenient recycling, composting, and reuse programs are available to residents.

4. Comment: Education should include raising awareness of the financial costs and potential savings associated with reducing recycling contamination as well as reducing trash disposal. Many residents may not be aware of additional fees that are paid by municipalities due to recycling contamination, and of how much taxpayer money can be saved by reducing their trash disposal rates. The financial incentive may be another compelling reason to provide to residents. For example, Newton's Mayor Fuller led a publicity campaign in 2018 to inform residents about the additional fees the City of Newton was paying due to contamination of residential recyclables. As a result, the City's contamination rate was found to significantly decrease in early 2019, so much so that the additional fees were eliminated.

Response: MassDEP agrees that it is important to raise awareness about the problems caused by recycling contamination and the need to improve recycling quality. This is a focus for MassDEP's Recycle Smart MA and Recycling IQ Kit programs.

Mattresses and Textile Waste Bans

1. Comment: Commenters expressed support for a waste ban for mattresses and textiles. Textiles are already easy to donate through other organizations. Mattress recycling options should be made available to all due to MassDEP's mattress recycling program. Other commenters raised questions about whether there are adequate options in place to manage these materials and encouraged further stakeholder discussions before implementing these bans, including a mattress study group, including how a waste disposal ban on mattresses would relate to an EPR program for mattresses. It was suggested that an extended producer responsibility (EPR) approach may be preferable to a disposal ban, as it shifts the cost of managing mattresses after their use away from municipalities. A commenter added that MassDEP should not promulgate a mattress disposal ban until a statewide recycling system is in place.

Response: MassDEP has published final waste ban regulations with an effective date of November 1, 2022. MassDEP will continue to engage in additional stakeholder discussions and technical assistance as we proceed with these waste ban additions to help entities establish successful programs to comply with the new bans. MassDEP also is supportive of a potential EPR approach for mattresses and does not believe that an EPR approach and a waste disposal ban are mutually exclusive. MassDEP does believe that waste bans can work effectively to drive increased recycling and market development without an EPR system, as has been shown with food material and other recyclables in Massachusetts.

2. Comment: A commenter also raised questions about a mattress ban, including

- a. When does DEP plan to impose mattress waste bans between now and 2030? How are the policy details of those bans and their timing established?
- b. How many mattresses will be diverted annually from disposal by those bans?
- c. The Draft Plan assumes that the bans will stimulate additional mattress recycling. But are those expectations realistic? How exactly would that happen?
- d. Does MassDEP intend at least to maintain current funding levels for its Mattress Recycling Incentive Program, and to increase funding between now and 2030 to meet the additional mattress diversion goal set in the Draft Plan? If so, how would that be accomplished?
- e. What regulatory actions will DEP take to make sure that the proposed disposal bans do not result in the diverted mattresses actually being transported from Massachusetts to neighboring states, rather than being recycled in the Commonwealth? What written and regulatory assurances can MassDEP provide its neighboring states that it will take action to prevent those states from having to pay for the disposition of Massachusetts' discarded mattresses?

Response: MassDEP has published final waste ban regulations with an effective date of November 1, 2022. MassDEP has not established a specific mattress recycling goal at this time. However, waste disposal bans have proven to be an effective way to leverage market development, capacity investment, and increased recycling and diversion in Massachusetts for many materials, most recently with food waste. MassDEP expects to continue to support the mattress recycling infrastructure through grants in the short term. Over time, as the system becomes better established, those grants will be phased out. With or without a disposal ban, MassDEP does not control where waste and recyclables are delivered and materials routinely cross state lines. However, MassDEP believes that a mattress disposal ban will drive continued increased investment in mattress recycling operations here in Massachusetts, leveraging increased jobs and economic activity in Massachusetts. MassDEP will continue to engage in additional stakeholder discussions and assistance to successfully implement the ban and supporting programs. MassDEP sees the current market for recycling mattresses as competitive, if not more cost effective, than current disposal practices, and anticipates that this will continue to improve through infrastructure investment driven in part by a waste disposal ban.

Other

1. Comment: We are a small, rural community, and our transfer station receives a lot of brush. MassDEP forbid our transfer station from burning brush, but burning it is the only way to get rid of it. There used to be a chipper, but it breaks down, and you can't just let the stuff build up. Small towns have extra issues because we can't consolidate easily.

Response: Burning brush can have significant impacts on local air quality and public health, which is why the activity is regulated under 310 CMR 7.07 – Open Burning. MassDEP provides technical assistance that can assist with identifying other non-burning options for the management of brush.

2. Comment: Can MassDEP provide more clarification about the proposed hauler recycling requirement and how this would be written? While we agree that consistent access to recycling

should be provided to all stakeholders in the Commonwealth, we do not agree with bundled service whereby the cost of recycling is hidden.

Response: Hauler recycling requirements have been proposed in legislation over the years and MassDEP believes legislation would be the best way to establish this requirement statewide. If hauler requirements are proposed in legislation, this would allow for sufficient participation from the affected parties which would help guide the details of implementation.

3. Comment: MassDEP should conduct a comprehensive fiscal analysis of municipal recycling costs.

Response: MassDEP does not have the authority to require specific reporting of municipal recycling costs but does work with many communities in assessing their solid waste and recycling programs through Municipal Assistance Coordinators. The Municipal Assistance Coordinators may be able to provide the requested analysis if they understand the desired information request and the objective.

4. Comment: While this would be a challenge, ideally every community in the state should have the same (or similar) rules for recycling and trash collection. That would reduce recycling contamination by reducing confusion, produce economies of scale, and make programs more efficient.

Response: MassDEP has worked through the RecycleSmart Initiative to produce and promote a standard list of acceptable program recyclables. This includes a Recyclopedia tool, through which a resident or business can search for hundreds of different materials and learn whether they should be placed in recycling bins, recycled elsewhere, or disposed of in the trash.

5. Comment: MassDEP should create grants to pilot innovative collection methods especially in more urbanized areas such as neighborhood drop-off locations for high-volume materials such as cardboard and glass. These systems are prevalent in Europe.

Response: MassDEP offers grants to municipalities to pilot innovative recycling projects and alternative collection methods would be eligible under the Waste Reduction Projects category of the SMRP grant program. To the degree MassDEP can help either through technical or financial assistance to improve program performance and advance further diversion, it certainly will.

6. Comment: One of the most significant challenges is the consolidation of private haulers - with fewer haulers, we end up with near-monopoly situations in that the municipalities need to pay whatever the haulers are charging. This makes it more difficult for municipal programs to compete with private programs and we end up in a downward spiral.

Response: The market for private solid waste services is constantly evolving. MassDEP does not control how the private market operates, but we certainly can, and do, work with municipalities through our technical assistance program to help explore all the options with the goal of obtaining the highest quality service at the lowest price. As part of this effort, MassDEP has developed guidance on how municipalities should contract for recycling collection and processing services to ensure the most cost-effective programs.

7. Comment: MassDEP should provide grants, assistance, and incentives for municipalities to develop zero waste plans, similar to what Boston has done.

Response: Municipalities can apply for technical assistance from MassDEP Municipal Assistance Coordinators who can assist in the development of a zero-waste plan by providing examples and reviewing such plans. MassDEP also provides Recycling Dividends Program payments to municipalities, which could be used for a wide range of program initiatives, potentially including zero waste planning.

8. Comment: Ban pesticides from store shelves in Massachusetts now; only allow professionals to administer. Even then limit usage. We do not need amateurs going to Lowes or Home Depot and buying any amount Roundup or any other chemicals to apply to the earth.

Response: MassDEP would need legislative authority to prohibit the sale of these products in the Commonwealth. However, the Massachusetts Department of Agricultural Resources conducts education programs for pesticide applicators. MDAR is responsible for the regulation of agricultural pesticide use through the diligent inspection, examination, licensing, registration, quarantine, and enforcement.

9. Comment: The increase in homelessness over the last several years means also increase in trash in the environment, because disposal options for homeless encampments are minimal. In 2018, it was estimated that there were 20,000 homeless people in Massachusetts. When we conduct our Source to Sea Cleanup every year, we clean areas where homeless people live or lived, being careful not to dismantle existing homes. People with no access to kitchens and homes for storage are forced to use predominantly single use items. Towns with significant homeless populations should be supported and given an incentive to offer disposal options to all.

Response: MassDEP can help communities with any number of solid waste management challenges. The first step would be to sit down together and define the problem, identify possible solutions, and work collectively to implement those solutions.

10. Comment: Mandate public space recycling at parks, public buildings, and schools, MBTA stations, entertainment venues, etc. Huge amounts of easily recyclable materials, such as empty plastic beverage containers, go into the trash at these venues every day. The state should also more aggressively enforce anti-littering laws to reduce litter in parks, beaches, roadsides, and the marine environment.

Response: MassDEP does not have the authority to require public space recycling, but there has been legislation proposed in the past pertaining to expanding public space recycling and MassDEP is certainly willing to engage in further discussion on how to address this potential sector. MassDEP provides funding to municipalities through the Recycling Dividends Program that can be used to fund public space recycling programs and has also provided equipment grants to state facilities for public space recycling containers.

Commercial Waste Reduction

Waste Ban Compliance

1. Comment: The proposed draft does not provide a conclusive plan or goal for reducing disposal of paper or cardboard. It mentions increasing adoption of the Recycling IQ Kit at the local level

to implement hands on “boots on the ground” local initiatives to reduce contamination in residential recyclables but does not include state level enforcement or incentives.

Response: MassDEP has developed the RecycleSmart MA initiative to establish clear guidelines for what should and should not be placed in recycling bins and is working through partner organizations and social media to raise awareness about these guidelines. Relative to increased recycling, MassDEP has established increased inspections, enforcement, and outreach on waste disposal ban requirements as a top priority. MassDEP believes that waste ban enforcement can be particularly effective at increasing cardboard recycling. MassDEP’s waste reduction goals by material category are specified in Appendix B.

2. Comment: MassDEP should publish all waste ban violations on the MassDEP website, so that the public can know when companies that they're using have committed a violation, which would allow us to change our shopping habits and to call for action there.

Response: MassDEP will assess opportunities to regularly share updates on waste ban compliance and enforcement initiatives.

3. Comment: Commenters expressed support for several initiatives, including:
 - a. Create and distribute outreach materials and an education campaign to raise awareness about waste bans.
 - b. Increase use of direct business information requests to gather more information on waste ban compliance status.
 - c. Support waste ban compliance through Recycling Works in Massachusetts technical assistance and guidance. Increase assistance for targeted sectors and materials, such as businesses subject to newly developed waste bans.
 - d. Continue to assist schools and deliver recycling and composting education to schools through the Green Team program.
 - e. MassDEP should work with municipalities with mandatory recycling policies to leverage improved waste ban compliance by businesses and haulers.

Response: MassDEP will maintain these initiatives in the Final Plan.

4. Comment: Would MassDEP consider establishing recycling expectations for commercial properties and public/open spaces where recycling isn’t happening today? Funding for education may be available through a variety of sources in the Commonwealth today; such as the Municipal Recycling Challenge through the Massachusetts Beverage Association.

Response: These expectations are set through Massachusetts waste disposal bans and MassDEP is working through the RecyclingWorks MA program and other channels to raise awareness about these requirements and deliver assistance to help businesses comply. MassDEP is interested in working with other partner organizations to further raise awareness and implement improved commercial recycling programs.

5. Comment: MassDEP has estimated that 40 percent of the waste stream is waste ban material. MassDEP needs to increase resources to reduce disposal of these banned materials. The Master Plan should establish specific minimum benchmarks for the number of inspectors needed by MassDEP to enforce waste bans. It should establish specific monthly and yearly benchmarks for inspections MassDEP must conduct so that there is public and internal agency accountability for waste ban inspections and compliance work.

Response: MassDEP is committed to increasing waste ban inspections to improve compliance and providing regular status updates through the SWAC. However, MassDEP does not believe that the SWMP is the appropriate vehicle to establish specific staffing assignments, as many factors can influence staffing priorities and assignments.

6. Comment: MassDEP should issue Notices of Non-Compliance (NONs) for generators, haulers and facilities when a third-party inspection reveals banned substances at landfills and facilities.

Response: MassDEP does not typically take enforcement action unless we observe a violation directly. This is in part to ensure that enforcement is issued properly, equitably, and only in cases where there is a clear violation. However, MassDEP does use results of third-party inspections to conduct outreach to generators and haulers and to target MassDEP inspections to address documented patterns of non-compliance.

7. Comment: Too often industry (haulers, recyclers, disposal facilities) is asked to act as the “inspectors” by sending “failed load” letters and charging for banned items pulled from the loads. This process is flawed and unsafe. Many generators and smaller haulers do not even understand what is banned and why. MassDEP needs to focus on the education aspect of the ban, first, and inspection/fines second. Industry can support this effort but cannot and should not act in an enforcement capacity—the onus needs to be on the generator.

Response: MassDEP is responsible for enforcing waste ban regulations to ensure a level playing field for waste ban compliance and does not expect solid waste facility or hauler staff to act in an enforcement capacity. However, MassDEP believes that solid waste facilities and waste haulers can and should play a vital role in improving waste ban awareness and compliance. This improved compliance is critical to ensuring an effective and sustainable waste management system in Massachusetts. Because solid waste facility and hauler staff interact with their customers on a daily basis, they are in an excellent position to provide feedback, improve communication and provided added value to their customers helping to ensure their compliance. MassDEP regularly hears from businesses, institutions and municipalities that want and expect solid waste facilities and haulers to play this role.

8. Comment: MassDEP should hold haulers and solid waste facilities equally accountable for the pickup, transfer, and disposal of banned substances.

Response: Solid waste facilities, waste haulers, and generators all share waste ban compliance obligations and MassDEP issues enforcement against all of these entities as appropriate.

9. Comment: It is best for MassDEP and local governments to do more recycling education on cardboard (and other recycling) and only pursue additional MassDEP or local enforcement actions when necessary. We do not support actions that disrupt our collection or facility management efficiencies for cardboard waste ban non-compliance by our customers.

Response: MassDEP agrees that recycling education is important, but the high amounts of recyclable, banned materials disposed of in the trash point to the need for direct waste ban inspections and enforcement to improve compliance.

Other

1. Comment: Most communities have strong residential programs. Yet when consumers visit convenience stores, fast food outlets, restaurants, fitness centers, and other businesses, they rarely have recycling access. This appears to be a huge, missed opportunity. Why not mandate that businesses provide effective recycling programs that ensure materials are recycled.

Response: MassDEP is working to continue to improve commercial recycling programs through a combination of waste ban inspections and enforcement and assistance through the RecyclingWorks program. The Plan also expresses support and commitment to work with the legislature on establishing a hauler recycling requirement which would insure recycling access to all parties.

2. Comment: All the metrics in the Plan are about the tonnage of waste, however, when it comes to the frequency of pickups, volume can be more important than weight.

Response: MassDEP believes that weight is the best overall measure of waste reduction progress as it can be reliably and consistently obtained and measured. However, we agree that, from an operational perspective volume, container sizes, and collection frequencies are critical parameters in ensuring effective collection programs.

3. Comment: There are several businesses and institutions in the state that have zero waste or other robust waste reduction goals and MassDEP should take advantage of their leadership and expertise.

Response: MassDEP works to identify business leaders in innovative and successful waste reduction programs and share insights from these programs with other Massachusetts businesses. RecyclingWorks in Massachusetts specifically works on improving commercial waste reduction through networking, assistance, and recognition.

Construction and Demolition Materials Waste Reduction

Wood

1. Comment: There is a lack of outlets for C&D wood. The legislative changes in New Hampshire eliminating Renewable Energy Credits for Biomass (biomass plants in New Hampshire are closing) have pushed a substantial amount of wood into the marketplace. This has made it very difficult to market C&D wood waste. We definitely need help in identifying new outlets for C&D wood waste.

Response: MassDEP acknowledges that C&D wood outlets for recycling and energy recovery have contracted in the past 10 years, and those that remain are imposing tighter acceptance specifications. That said, the remaining C&D Wood outlets, of which there are primarily two – a particle board manufacturer in Quebec, and a biomass gasification energy plant in Connecticut – continue to have spare capacity to accept additional clean wood from Massachusetts. To take advantage of this opportunity, the C&D Action Plan, articulated in the 2030 Solid Waste Master

Plan, will include efforts to expand and develop end markets. This would include improvements to C&D processor operations and equipment to recover more clean wood from mixed C&D waste loads to meet the more stringent acceptance criteria of the existing markets.

2. Comment: Our local transfer station has single stream for construction debris and does not distinguish untreated wood. Separating this at the transfer station could provide a significant benefit, but that also requires contractors using the site to not be lazy, or that they're overseen (at some cost). Some details for how this would be handled would inform the Plan. Furthermore, untreated wood would still have hazards like splinters and nails.

Response: MassDEP supports all options for recovering more clean wood for recycling. That said, MassDEP cannot dictate how a local transfer station chooses to operate its facility, if it complies with the MassDEP waste ban regulations. The transfer station has the option of either allocating resources to separate banned materials at the point of collection or transferring mixed C&D waste loads to a permitted C&D Processor to recover the banned materials at an offsite location designed for that purpose.

Other Market Development

1. Comment: In addition to items targeted on Page 20, MassDEP should establish gypsum wallboard and rechargeable batteries as market development priorities.

Response: MassDEP is in favor of fostering in-state market development for a wide range of reusable, recyclable, and compostable materials. Gypsum wallboard is a perfect example of a recyclable material that fits this category. Clean gypsum is identified as a priority material in the "Construction and Demolition Materials Waste Reduction" section of the Solid Waste Master Plan. MassDEP does encourage recycling of rechargeable batteries.

2. Comment: MassDEP should work with appropriate agencies to support the development and implementation of standards and practices to include asphalt shingles in pavement applications.

Response: MassDEP concurs that it should advocate for the use of asphalt shingles and other recyclable materials such as processed glass aggregate and crumb rubber tires, in various transportation infrastructure and highway applications. MassDEP maintains an open dialogue with the Materials Research and Engineering Center within the MassDOT Highway Division to explore opportunities of this nature. The Final Plan includes a commitment to establish a State Agency Recycling Market Development Council. This Council, which will be chaired by the Executive Office of Energy and Environmental Affairs, will bring together Secretariats including Administration and Finance, Education, Housing and Economic Development, and Transportation. This group will focus on increasing the use of recycled materials in state building, construction, and renovation projects. Focus materials are expected to include asphalt shingles, glass, compost, office furniture, and tires. In addition, in the Final Plan, MassDEP has committed to launching an initiative to work with leading academic and research institutions, as well as other stakeholders, to identify innovative strategies and approaches to advance waste reduction and recycling systems, and develop new market alternatives for materials. As part of this effort, MassDEP will create a \$1 million grant program to foster development of innovative approaches to reducing and managing waste.

Reuse and Source Separation

1. Comment: More emphasis should be put on deconstruction and reuse.

Response: MassDEP agrees that deconstruction and reuse are important waste management options for certain types of C&D projects. The current C&D Action Plan includes these options under the statement “Promote waste re-use, reduction and separation at the job site.” MassDEP has been actively promoting such activities as part of the guidance it provides through its technical assistance organization, Recycling Works, and providing technical and financial assistance to organizations such as Habitat For Humanity. MassDEP will continue to promote these types of strategies at the top of the waste management hierarchy.

2. Comment: Commenters expressed support for initiatives to encourage increased building materials resale and foster local ordinances for building deconstruction.

Response: MassDEP will continue to encourage the use of C&D Material Re-use stores. MassDEP has collected extensive information of C&D reduction and reuse opportunities and will continue to work with municipalities and other stakeholders to explore models and pilots for local ordinances to require C&D recycling management and diversion, and deconstruction as part of local building permits.

3. Comment: Gypsum should be considered a target material to manage via source separated collection.

Response: MassDEP agrees that clean gypsum wallboard is a good candidate as a target material for source separation at the jobsite. Through its technical assistance organization, RecyclingWorks, MassDEP has been actively seeking developers, owners, and contractors to conduct pilot projects to improve jobsite separation of clean gypsum wallboard.

4. Comment: C&D recycling facilities are likely processing and recycling as much material as is feasible/practical. They can only extract what recyclable materials arrive in each load. With LEED programs and transfer stations picking out recyclables, less recyclables are ending up at the processing facilities all together.

Response: The 2016 C&D Debris Market Study (NERC/DSM, May 2017) found that some C&D Processors in Massachusetts were recovering between 27% and 32% of recyclable materials from mixed C&D waste loads, but that greater recovery of certain materials was still possible. Other processors were recovering far less. The NERC/DSM report highlighted wood, metals, and bulky rigid plastic as marketable materials with greater opportunity for recovery. Processors can work with project managers to coordinate management of source separated materials, and they can encourage source separation of problem materials or difficult to recover materials, such as gypsum wallboard and ceiling tiles, to help improve the overall process efficiency and diversion rates of the processing facilities.

5. Comment: There is extreme variability in markets for untreated wood, textiles, and bulky items. We believe MassDEP should explore minimum content laws to help create or sustain markets for the material we collect and endeavor to divert into recycling and re-use markets.

Response: Minimum content laws could be one of several legislative strategies to help foster in-state market development for reusable, recyclable, and compostable materials. In addition, MassDEP has and will utilize its technical and financial incentives, such as the Recycling Business Development Grants and the Recycling Loan Fund to develop more diversion capacity and end markets for materials with market variability.

6. Comment: We are concerned about all the new costs to get generators (our customers) on board with the new source separation requirements, establishing the programs to collect them, and the facilities to process and aggregate them for any available markets.

Response: MassDEP acknowledges that changing long-held waste management behaviors and practices may require a significant investment of time and resources. But with the inevitable reduction in in-state landfill capacity over the next decade, there is little choice but to reduce waste disposal through a mix of source reduction, reuse, recycling, composting, and other diversion strategies. There will always be a need for processing facilities to separate recyclable materials from mixed waste or mixed recycle streams, but reduction, reuse and source separation must be part of the equation. No one strategy will solve all our waste management challenges. MassDEP believes in an all-of-the-above approach and will let the markets dictate the degree to which each strategy gains market share.

Market Development

1. Comment: There are materials, such as glass, that can be recycled but still are not being sustainably recovered. The Commonwealth has MRF glass byproducts, but there is no regulatory expectation that businesses use recycled glass in their building specs therefore industry is limited to beneficiary or processing plants. MRFs will produce a spec that builders want if they can get the spec.

Response: MassDEP has established glass as a priority material for market development, particularly glass from MRFs. MassDEP has awarded four grants for glass recycling through the Recycling Business Development Grant program as well as two municipal grants to establish glass recycling operations. MassDEP has also been providing trainings and educational sessions to expand the adoption of the processed glass into construction activities. MassDEP will continue to prioritize restoring in-state markets for glass until these satisfy Massachusetts needs.

2. Comment: Building markets is critical to sustainable materials management. The Commonwealth should work with industry, other state agencies, local governments and other parties to establish programs to help manufacturers make packaging more recyclable and sustainable. The only way to improve the recycling rates is to create local markets for commodities. Massachusetts needs to create an economic incentive package to attract manufacturing facilities that would take the commodities that we prepare for market. We need Massachusetts manufacturing facilities that could take the plastics, paper, cardboard, metals and glass and make new products, which would also create jobs and bring tax revenue to the state. Maybe Massachusetts could also collaborate with other states in New England on bringing in manufacturing facilities that would utilize these commodities as a feed stock.

Response: MassDEP is committed to working with state agencies and other states in the region and linking together multiple sources of funding and assistance to support the growth of new or expanded recycling operations/markets in Massachusetts. The Final Plan includes a commitment to establish a State Agency Recycling Market Development Council. This Council, which will be chaired by the Executive Office of Energy and Environmental Affairs, will bring together Secretariats including Administration and Finance, Education, Housing and Economic Development, and Transportation. This group will focus on increasing the use of recycled materials in state building, construction, and renovation projects. Focus materials are expected to include asphalt shingles, glass, compost, office furniture, and tires. In addition, in the Final Plan, MassDEP has committed to launching an initiative to work with leading academic and research institutions, as well as other stakeholders, to identify innovative strategies and approaches to advance waste reduction and recycling systems, and develop new market alternatives for materials.. As part of this effort, MassDEP will create a \$1 million grant program to foster development of innovative approaches to reducing and managing waste.

3. Comment: Several of the commodities we struggle to market or have no market include #3, #4, #6 & #7 plastics, rigid plastics and glass.

Response: MassDEP has made both glass and mixed plastics a priority for our recycling grant programs. MassDEP will continue to assess opportunities to expand and leverage market demand for these materials.

4. Comment: MassDEP should add a focus on coordinating municipal purchasing policies, alongside using state agency purchasing power, as an engine for market development, because when aggregated, municipalities can reach significant scale.

Response: MassDEP agrees with the value of municipal purchasing power and has established buy recycled purchasing policies as an eligibility criterion for the Recycling Dividends Program (RDP) and other grants. Through the RDP, municipalities that establish and maintain programs earn a specified number of points which earns them payments to support their recycling, composting, and waste reduction programs. MassDEP also coordinates with the Operational Services Division, the state's purchasing agency, to establish and maintain contracts that both state and local agencies can use to purchase recycled and other environmentally preferable products.

5. Comment: Washington State's "recycling center" could serve as an example to Massachusetts. The center facilitates research but also contracts with third parties to provide direct "market-maker" activities and directly support the private and public sector. It also has a special focus on developing markets. The South Carolina Department of Commerce is another good example of a state level recycling economic development program.

Response: MassDEP will research recycling market development programs in other states for consideration in developing a Recycling Market Development Action Plan for Massachusetts.

6. Comment: MassDEP should develop approaches to eliminate barriers or create incentive investment in recycling technology, including:
 - a. Consider seeking a grant from the Foam Recycling Coalition (FRC) for programs ready to start or strengthen post-consumer foam recycling.

- b. Fund demonstration projects or proof of concepts to confirm feasibility of increasing recycling infrastructure.

Response: MassDEP will continue to look for partnerships for technical and financial support of our recycling infrastructure, such as the Closed Loop Fund. We will pursue demonstration projects that have the potential to reduce barriers to diversion and increase the market value of recyclables. Developing targets and strategies will be a primary focus of the state's Recycling Market Development Action Plan. In addition, in the Final Plan, MassDEP has committed to launching an initiative to work with leading academic and research institutions, as well as other stakeholders, to identify innovative strategies and approaches to advance our recycling systems. As part of this effort, MassDEP will create a \$1 million grant program to invest in recycling and waste reduction innovation.

7. Comment: How does the MOU with the Closed Loop Fund work and how can we learn more about this opportunity? There could be further collaboration that can take place with support of industry and other stakeholders.

Response: The Closed Loop Fund is private financing group that [provides below-market rate loans to finance projects that build out circular economy infrastructure in the United States](#). MassDEP will determine how to incorporate the Closed Loop Fund as part of the development of our Market Development Action Plan.

8. Comment: The Plan should develop incentives to MRFs to clean materials to higher quality, since the MRFs are often most interested in moving volume and they can pass along costs to communities. It is also in the interest of the state to have cleaner materials in order to keep programs running effectively during market downturns. The experience of mission driven processors in other parts of the country, such as EcoCycle and Eureka, show that single stream materials can in fact be sorted to higher quality with adequate education and processing.

Response: MassDEP has awarded grants to two MRFs to make investments in their operations to help to reduce contamination and improve their ability to sort and prepare higher value materials for markets. Other Massachusetts MRFs have made major equipment investments recently to improve their processing operations and improve the value of the products they are processing. MassDEP also will conduct inspections at MRFs to verify that residuals do not contain significant quantities of waste ban materials or other marketable materials. MassDEP also has developed recycling contracting guidance for municipalities to develop and establish best practices for contracting for recycling, whether directly with MRFs or through a hauler.

9. Comment: Because of the increased amount of plastic in our discards, MassDEP should look into the possibility of creating a PRF (Plastics Recovery Facility) to sort plastics to higher grades.

Response: This type of facility could be built and permitted now. MassDEP will consider how to advance the development of this type of facility in developing the Recycling Market Development Action Plan.

10. Comment: MassDEP should support an expanded Bottle Bill which will make curbside materials cleaner, as well as lead to a cleaner stream of glass that can go to higher value markets than fill. A commenter expressed support for a bottle bill for all glass, which would save a lot of money in

the recycling system. In addition, the deposit should be raised to at least 10 cents and preferably 25 cents.

Response: MassDEP points out that there are opportunities, but also challenges with the bottle deposit system to potentially divert and capture more and higher quality materials. Addressing these issues would require legislative action and should be explored further in legislative discussions.

11. Comment: MassDEP should consider opening grants to any material for which markets can be grown or retained in-state. Creating more jobs and more diverse opportunities for reduction and diversion will help increase awareness about Zero Waste and create a culture of waste reduction, while also diversifying the materials markets. Some examples might be Zero Waste stores that sell items in bulk with reduced packaging; ways to reduce the proliferation of disposable cups, plates, utensils by creating businesses that wash durable ones; bottle washing plants for refillable bottles; grants and loans for glass products, such as blown glass or molded pavers, which may use relatively small volumes of material but be high value. MassDEP could partner with accelerators like Mass Challenge and Clean Tech Open to sponsor Zero Waste challenges, educate applicants about Zero Waste, or articulate Zero Waste priorities and ideas that budding entrepreneurs could turn into business plans.

Response: MassDEP's recycling market development grant and loan programs, as well as the reuse and repair micro-grants, are focused on making investments in reuse and recycling infrastructure in Massachusetts, that can keep the benefits of these operations in state. Further efforts to expand markets for recovered materials will be developed through the Recycling Market Development Action Plan.

12. Comment: Limited management capacity at MRFs has been alleviated due to facility investments, however material quality and contamination remain significant issues for MRFs.

Response: MassDEP agrees that recent facility investments have helped to alleviate MRF capacity constraints and agrees that we must collectively work to continue to improve material quality and reduce contamination. Several Massachusetts programs, including Recycle Smart MA, the Recycling IQ Kit, and the RecyclingWorks program are focused on these issues. MassDEP will also assess further opportunities to work with MRFs to improve their processing systems, increase recovery and reduce residuals.

13. Comment: We recommend revising the current underdeveloped market development section with an eye to economic development in working-class communities and communities of color classified as Environmental Justice communities, in ways aligned with these communities' interests. This will mean working closely with both municipalities and grassroots organizations that can credibly represent the communities' goals to identify needs and target policies in ways that are reparative.

Response: MassDEP is committed to exploring opportunities for leveraging recycling and reuse market development and job creation opportunities in environmental justice communities in developing the Recycling Market Development Action Plan.

Solid Waste Facility Oversight and Capacity Management

In-state Disposal Capacity and Disposal Export

1. Comment: The current inter-governmental, public-private solid waste system partnership that we have all worked with over the years should stay in place and not be radically altered. As noted earlier, the current system has not only produced; but it is well positioned to meet the state's future solid waste system challenges and needs.

Response: MassDEP does not intend to alter the structure of the solid waste system in Massachusetts. All parties need to participate and work collectively to achieve a system that further reduces disposal and protects the public health and environment.

2. Comment: A number of commenters raised concerns about limited in-state disposal capacity. Page 21 of the Draft Plan notes that even if we achieve the 2030 solid waste reduction goal of 30%, there will still be an in-state disposal capacity gap of approximately 700,000 tons. These commenters expressed concerns with relying on waste being exported to landfills out of state as a significant portion of Massachusetts' disposal capacity. Commenters raised concerns about the risks of relying on out of state disposal capacity as well as the environmental effects of shipping waste over long distances. MassDEP Master Plan policies have limited capacity growth and, therefore, raised the cost of disposal. If disposal becomes too expensive, that can lead to more illegal dumping. What is MassDEP doing to address in-state management capacity need and disposal costs?

Response: With a predominately privatized solid waste system, there is a reliance on private companies to propose, site and operate solid waste facilities to manage the collection, transfer, and disposal of solid waste. Massachusetts has not had a new landfill proposed since 1995 but has received a number of proposals to transfer waste to out-of-state locations, particularly via rail. MassDEP believes the cheaper out-of-state disposal rates are driving this activity. Should access to out-of-state disposal become limited, MassDEP expects private companies would respond by proposing more in-state disposal options. Opportunities do exist for private companies to work with local governments to site new in-state disposal capacity.

3. Comment: MassDEP should phase out existing disposal capacity and close existing landfills and municipal waste combustion facilities, particularly those in Environmental Justice communities.

Response: Virtually all active municipal solid waste landfills in Massachusetts are projected to close by 2030. Even if Massachusetts meets our aggressive 2030 disposal reduction goals and all existing municipal waste combustors remain operating through this period, MassDEP still projects that nearly 700,000 tons of waste would need to be sent out of state for disposal by 2030. Given this projected disposal and capacity need, MassDEP believes it is important to preserve existing disposal capacity at least through 2030. In the SWMP program review to be conducted in 2025, MassDEP will make a concerted effort to improve the performance of existing combustion capacity and explore the potential to establish a declining cap on carbon dioxide emissions on the municipal waste combustor sector.

4. Comment: As noted in the Plan, New England is generally constrained when it comes to disposal capacity. If the Commonwealth isn't interested in creating in-state disposal, it should consider partnering with neighboring states to solve regional collective capacity issues.

Response: MassDEP coordinates regularly with neighboring states on solid waste management issues and will continue to do so.

5. Comment: Some commenters requested that MassDEP adopt a policy to achieve no net import/export of solid waste. Allowing for increased export creates a sector of the industry whose interest it is to promote continued disposal. Therefore, we recommend a goal to eliminate or at least drastically reduce export by 2030. To do this, the Plan should call for the convening of a stakeholder group of municipal and business leaders, waste industry professionals, and others to work towards restoring the long held and only recently abandoned “no net import–no net export” state waste disposal capacity policy. MassDEP should develop a public-private partnership with industry to create capacity and lessen risk, cost and environmental impact related to reliance on export. Facility development can be contingent on sustainability, innovation, and other key performance indicators as directed by the Commonwealth. New in-state waste-to-energy and landfill disposal capacity will serve the state well and will protect and ensure the free flow of waste remains legally available in interstate commerce.

Response: MassDEP does not believe a policy of no net import/export would be prudent or drive any significant market change. With solid waste interstate transfer considered inter-state commerce, it is unlikely that the movement of solid waste across state borders either into Massachusetts or out of Massachusetts can be restricted by the Commonwealth or any other state without raising constitutional concerns. Disposal project proponents need to work with local governments, which play a significant role in facility siting, to identify cost effective and environmentally protective opportunities that can garner local support. MassDEP, through its permitting process will ensure that any project meets the highest environmental standards. MassDEP will continue to provide capacity updates on an annual basis through the SWAC and engage with stakeholders to discuss and address management capacity needs.

6. Comment: Page 7 of the 2020 SWMP discussed sludge from wastewater treatment plants, yet there is no mention of it in the 2030 SWMP. Wastewater treatment sludge is not “solid waste” per se, but the limited places communities can send this sludge is getting very challenging and should certainly be on DEP’s radar as a problem that needs attention at the state level.

Response: Wastewater treatment sludge is not considered solid waste and therefore not a focus of the SWMP, but MassDEP recognizes that outlets for sludge management are shrinking. In the solid waste facility oversight and capacity management section of the SWMP MassDEP acknowledges the need to assess management options for non-MSW materials such as sludge. For example, MassDEP has advocated strongly for anaerobic digestion at wastewater treatment plants to reduce sludge volumes and generate renewable energy.

7. Comment: Disposal capacity also needs to be in place to handle debris generated from major storms and other disaster events. Without this capacity, it will be difficult to effectively manage disaster debris.

Response: MassDEP acknowledges that weather and other events can generate significant amounts of debris. MassDEP responds to major debris events by allowing increased activity at existing facilities for the duration of cleanup after the event, which has worked effectively. MassDEP believes that through local and state emergency planning efforts these materials can

be adequately managed through the existing solid waste system. It would not be prudent to develop disposal facilities based on the capacity needs of one-time events.

8. Comment: MassDEP should consider building a State owned or operated landfill similar to the one in Rhode Island.

Response: MassDEP does not think the state should be in the business of managing waste materials because local governments that provide solid waste services to its residents are better suited to engage in partnerships with the private sector in facility siting and development.

9. Comment: In addition to considering alternative waste management technologies, the current need for maintaining, or expanding after 2020, solid waste landfill capacity should be acknowledged in the Plan. These important facilities can reliably provide back up, address a capacity shortfall, and manage residual wastes until new technology can be proven reliable and effective.

Response: Under the SWMP, development of landfill capacity is still allowable. MassDEP identifies in the Plan the potential to site integrated solid waste management facilities to improve our waste management infrastructure.

10. Comment: MassDEP should publish annual solid waste data and capacity updates.

Response: MassDEP will continue to review and publish solid waste disposal and capacity data on an annual basis to measure progress towards our disposal reduction goals and to reassess capacity need.

Municipal Waste Combustion Moratorium

1. Comment: Mass DEP needs to work towards lifting the moratorium on waste-to-energy Plants to allow for additional in-state management capacity. Additional waste-to-energy and landfill disposal in Massachusetts would add stability to existing waste processing programs and would support additional recycling. Jobs would be created in Massachusetts at the new facilities. The state economy would benefit from the opportunities to recover additional materials and energy value from waste. Moreover, the energy production from these facilities would offset emissions from conventional fuels and would reduce reliance on fossil fuels to generate electricity, all in accordance with state policies to encourage new sources of green renewable energy.

Response: Massachusetts currently sends over 70% of its municipal solid waste to seven in-state waste-to-energy plants. The SWMP priority is to reduce the generation and disposal of solid waste, through reduction, reuse, and recycling, which provide more economic opportunities than disposal while improving public health and our environment. As the Plan states, MassDEP will be monitoring and assessing existing waste-to-energy capacity every five years, allow for replacement capacity, and allow the permitting of other innovative technology proposals up to 350,000 tons per year.

2. Comment: Some commenters expressed support for the proposed modification to allow replacement capacity within current municipal waste combustion capacity. These facilities are essential for the waste management needs of the state. This policy will go a long way to

ensuring that this needed in-state disposal capacity can continue to serve Massachusetts citizens, communities, and businesses.

Response: Massachusetts currently sends over 70% of its municipal solid waste to seven in-state waste-to-energy Plants. This capacity helps ensure proper management of waste currently going for disposal. The Plan states that MassDEP will assess the existing waste-to-energy capacity every five year while simultaneously evaluating progress towards our waste reduction goals. Striking the proper balance between needed disposal capacity and progress in waste reduction will be important to meeting our overall goals.

3. Comment: The Draft Plan will compromise long-standing Massachusetts waste infrastructure policy on building new incinerators. Massachusetts has had a moratorium on building incinerators since 1989 due to concerns that such facilities emit toxic air pollutants, are dangerous to nearby communities and businesses, and are costly to municipalities and taxpayers. Continued waste to energy capacity is unacceptable in a zero waste plan and poses disproportionate impacts for environmental justice communities. Commenters stated that MassDEP should maintain the current moratorium as is without allowing for additional replacement capacity.

Response: Massachusetts currently relies on in-state waste-to-energy capacity to meet most of its disposal needs and will continue to need waste disposal capacity into the future even if our disposal reduction goals are met. Therefore, the final Master Plan allows waste-to-energy replacement capacity. However, MassDEP will assess the existing waste-to-energy capacity every five years while evaluating progress towards our waste reduction goals. Any replacement capacity would be required to meet tighter emissions and efficiency standards and increase separation of recyclable materials.

Gasification and pyrolysis

1. Comment: While we all work to achieve reduction and diversion goals across materials categories, the Commonwealth and the private sector must also invest in alternatives to landfill disposal. We support MassDEP's commitment to permitting additional capacity for innovative waste-to-energy facilities and/or non-combustion technologies such as gasification and pyrolysis, all of which must meet robust public and environmental health standards. We support such efforts because these technologies have the potential to provide viable recycling options for converting products like discarded mattresses into new materials. A commenter stated that this capacity should be for any technology that meets MassDEP's emissions and operating standards.

Response: MassDEP wants to consider only the highest performing waste disposal technologies that recover materials upfront and minimize impacts to public health, safety, and the environment.

2. Comment: Many commenters expressed concerns with the provision to allow for 350,000 tons of innovative waste to energy technology, such as gasification. This is the biggest risk outlined in the Plan. These facilities have not been demonstrated to be financially and technically successful. Additional waste to energy capacity in any form is not consistent with achieving zero waste goals, which should focus on disposing of less waste, not more. This additional waste to energy capacity is incompatible with increased recycling and a zero-waste plan.

Response: As the Commonwealth pursues its efforts to reach a 2050 goal of 90% reduction in waste disposal, we must ensure that, in the interim, wastes that are generated for disposal are properly managed. MassDEP believes that any replacement waste disposal capacity should be technologies that minimize environmental impacts, protect the public health, and aggressively divert materials. MassDEP wants to allow the potential for alternative technologies that could achieve these improved results.

3. Comment: Massachusetts should provide economic development support for gasification technology and facility development. MassDEP should consider these facilities to be recycling facilities.

Response: Solid waste facilities may be eligible for certain financing, for example, through MassDevelopment's tax exempt bond financing. Any such facility that accepts mixed solid waste would be considered a solid waste disposal facility, even if producing energy. MassDEP plans to devote its limited grant and assistance resources to supporting programs and facilities to increase source reduction, reuse, recycling, composting, anaerobic digestion, and other initiatives to reduce solid waste disposal and increase these forms of materials management capacity.

4. Comment: MassDEP should establish a fast-track review and permit process for gasification projects to encourage private sector investment.

Response: Fast-track permitting may be an option depending on project specific considerations as determined by MassDEP. However, given the anticipated level of public interest that may arise with a proposed gasification facility, the process would need to include sufficient public input. In addition, a solid waste gasification facility typically would need a site assignment from the local board of health and review under the MEPA process.

Other

1. Comment: As defined by the EPA Waste Hierarchy, landfills with gas-to-energy recovery are treated equal from an environmental perspective as a waste-to-energy facility. How will DEP take an objective look at permits?

Response: MassDEP reviews permits in accordance with the requirements established within its regulations and the SWMP. Each permit is reviewed independently. The SWMP does not prohibit the construction of new landfills.

2. Comment: MassDEP should follow the guidelines and standards being released by the USEPA for emerging contaminants and chemicals of concern and not create separate standards for the Commonwealth. We also recommend MassDEP conduct risk assessments and cost benefit analyses related to contaminants and chemicals of concern to assure that the benefits achieved by "addressing" the contaminants are worth the cost. Emerging contaminant regulation should focus first on the industrial/commercial/residential sources of the contamination, and secondarily on the sinks, such as solid waste management facilities. How the contaminants are regulated at solid waste facilities should also be consistent with regulation at other sinks such as wastewater treatment facilities.

Response: MassDEP considers guidelines and standards released by EPA on emerging contaminants and chemicals of concern when establishing its own standards. As standards are

developed, MassDEP will consistently seek input from stakeholders to identify the impacts of such standards.

3. Comment: Can DEP outline specifically what regulations they intend to change and the process by which they will do this?

Response: MassDEP will be undertaking a comprehensive review of 310 CMR 16.000 and 310 CMR 19.000. MassDEP has held pre-draft hearing stakeholder meetings seeking comments and input. MassDEP will propose draft regulations with public hearings and ultimately promulgate final regulations in accordance with M.G.L. c. 30A.

4. Comment: In lieu of developing mandatory frameworks for monitoring and financial assurance beyond 30 years, MassDEP should consider functional stability models (used in other states) that allow site-specific evaluations of threats to human health and the environment. Some landfills can reach functional stability in less than 30 years, and some will require greater than 30 years.

Response: The SWMP states that MassDEP will discuss and develop policy for post-30-year monitoring and financial assurance requirements at landfills. In conjunction with stakeholders a variety of models and examples will be discussed.

5. Comment: MassDEP needs to develop and consistently utilize tools to provide feedback and suggest improvement at facilities other than legal-driven enforcement actions. The lack of enforcement tools beyond monetary fines and consent order prevents constructive dialog between regulators and the regulated community.

Response: Except for instances when there has been a release to the environment, MassDEP compliance and enforcement is a progressive process, which starts with a Notice of Non-Compliance. A NON does not include a financial penalty. Continued non-compliance or repeat offenses may include penalties. MassDEP's solid waste program also requires independent third-party inspections, which can assist in identifying compliance issues and recommend actions at a facility prior to a MassDEP inspection and enforcement.

Appendix A: Master Plan Action Items by Program Area

No comments

Appendix B - 2030 Goal Analysis Spreadsheet

1. Comment: The color-coding of Appendix B seems like it is backwards, red should be problem areas and green should be considered a success.

Response: MassDEP agrees with this comment and will change the color coding by category.

2. Comment: We encourage MA to put tires at a higher priority level than medium-low and to work with other New England states to put together an extended producer responsibility program together for tires.

Response: This color coding reflects the additional diversion potential by material category. MassDEP believes that the additional diversion potential for tires is relatively small compared to other materials remaining in the solid waste stream. There may still exist opportunities to

improve markets for recovered tires, which can be considered in the Recycling Market Development Action Plan.

3. Comment: 2018 mattress disposal data appears to be understated. We urge DEP to review its mattress data on page 26 of the Draft Plan because it appears to understate the weight of mattresses disposed in the Commonwealth in 2018. Based on MassDEP's own data, as well as data from the Mattress Recycling Council, it appears that a more accurate estimate of mattress disposal would be between 13,000 and 16,500 tons.

Response: MassDEP has adjusted the estimate for mattress disposal to 16,000 tons in the Final Plan.

Appendix C – DRAFT 2018 Solid Waste Data Update

1. Comment: Your first draft report listed Parallel Products as a permitted facility. This error was corrected, but everyone may not have seen that retraction. They have made comments to members of that community (who passionately oppose this project) that it is pretty much a "done deal", because they "have people" at the MassDEP. When the listing of this project as permitted in the Master Plan was detected and questioned by a citizen, it was excused as a typo and since corrected to pending, but I am sure you can understand how citizens might have difficulty "trusting the process" now.

Response: As stated in the comment, this error was corrected in the initial draft report. This error was due to transcribing information from one table to another and does not have any connection to MassDEP's review of this facility.

2. Comment: What is the cumulative capacity shortfall between 2017 and 2030 if the state achieves its goals? What will the shortfall be if the state does not achieve its goal (assuming current diversion rates for example)?

Response: This number can be calculated by adding the data across in each of the bottom two rows of Table 9 in Appendix B. One row shows what the in-state capacity shortfall/net export for disposal would be in each year based on maintaining current annual disposal (baseline disposal.) The next row shows what that amount would be if disposal were reduced in line with achieving MassDEP's goal to reduce disposal by 1.7 million tons on an annual basis by 2030.