



**Comments from the New York City Solid Waste Advisory Boards and  
a coalition of environmental organizations**

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## Introduction

The New York State Climate Action Council in its Nation-leading Climate plan and resulting law set the goals of a 40-percent reduction in statewide greenhouse gas emissions from 1990 levels by 2030 and an 85-percent reduction from 1990 levels by 2050. The Plan states, “GHG emissions from the waste sector represent about 12% of statewide emissions, including landfills (78%), waste combustion (7%), and wastewater treatment (15%). Most of these emissions represent the long-term decay of organic materials buried in a landfill, which will continue to emit methane at a significant rate for more than 30 years.”

Waste as part of the requirements to achieve these goals the CAC recommends comprehensive action to reduce the state’s generation of solid waste and the implementation of circular economy approach to materials management is understood and employed. citing its role in the generation of greenhouse gasses

- We have structured these comments and amendments as a plan to achieve a sufficient number of specific objectives and complete deliverables by specific dates in order to approach zero waste by the early 2030s. This is necessary to achieve climate change reductions in a timely manner according to the CLCPA. We should not be relying on incremental changes that are not date-specific without deliverables that will achieve far less in the planning time horizon. To do fewer action items than we have recommended will not ensure the State reaching or approaching DEC’s Zero by 2030 goal.
- We recognize that there are a lot of action items proposed here and we are committed to work to assist you in advocating for DEC to get sufficient funding and staffing to accomplish all the action items here.
- We have drawn from a number of documents that we have written as well as included references to the work of others in structuring our recommendations. These documents include our collective, alternative zero waste plans written in [1991 Recycle First](#), [2004 Reaching For Zero](#) and [Roadmap 2022 - New Zero by 2030 Plan](#)’ as well as legislative recommendations (e.g. [2022 MSWAB proposed zero waste bill](#) for NYC, [Revision and Update of the 1988 Solid Waste Management Act](#), and [Proposals for legislation by MSWAB waste prevention committee](#)) and numerous other fact sheets, position papers, and outside references.
- Three additional sections were added at the end as they were not addressed in the draft SWMP: (1) Sustainable Disaster Debris Prevention and Recovery, (2) Environmental Justice, and (3) Update and revision of the NYS Solid Waste Management Act of 1988.
- We suggest that the DEC tailor the draft plan to always follow the Zero Waste Hierarchy ([www.zwia.org/zwh](http://www.zwia.org/zwh)), which means the discussion of reduction should come before reuse/repair in this and the following sections that have it reversed. These comments, amendments and deletions were debated in over 20 meetings lasting 2 - 6 hours each, among many people from many organizations over more than two months. We look forward to your response.]

### **[Guiding rates and dates**

- Per capita interim diversion goal of 50% by 2026, 75% by 2028, and 90% by 2030
- Colleges and universities to achieve 90% reuse by 2030,
- increase program participation towards a goal of 100% by 2030.
- Deconstruction and recovery of aggregate recycled 50% by 2026 and 90% by 2030.
- All bills on EPR mandate 50% reduction of packaging over ten year
- Mandate statewide organics collection by 2026
- At least 90% recycled content by 2030 for all products and packaging purchased by state agencies
- At least 50% recycled content by 2030 for packaging sold in New York State
- A schedule that increases recycled content 10% every two years until products use the highest percentage of recycled content that can technically and safely be used for the material in question.
- CLCPA goals - 40% reduction in statewide greenhouse gas emissions from 1990 levels by 2030 and an 85% reduction from 1990 levels by 2050.
- Zero Waste (or close) to landfill and incineration by 2030.]




## Waste Prevention, Reduction, and Reuse (DEC draft Page 45)

Waste prevention, reduction, and reuse not only keep valuable materials from being disposed of, but also minimize or eliminate materials from requiring processing or management at all. Waste reduction focuses on the prevention or reduction of solid waste generation through changes in consumer and business behavior; changes in products, packaging, and purchasing; repair; and reuse.

Reuse and recycling should be maximized when the generation of waste cannot be prevented or reduced. It is important that these materials are integrated into the circular economy and utilized in the development of new products.

Goal: [Develop guidance (DEC) and] <del>Increase opportunities for</del> [a requirement that all New York State [jurisdictions,] residents and institutions [have municipal programs to allow] to participate[ion] in waste prevention, reduction, and reuse [programs with an interim goal of 50% reduction in per capita generation of discards by 2027 and 90% reduction in discards per capita by 2030 in service of the State's Zero by 2030 goal.]				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<b>Reuse and Repair</b>				
[DEC should write guidance on how local jurisdictions should accomplish the above goals for waste reduction.]	[DEC]	[Write guidance by 2025]	[Manufacturers, environmental organizations, retailers, municipalities, consumers, repair organizations and Businesses, solid waste advisory boards]	
Support [legislative] proposals that assist consumers to repair damaged products first instead of purchasing new products, encouraging repair, and reducing e-waste.	Legislative	<del>3-years</del> Propose – 2024 <del>Begin</del> [Enact] – 202[5]7  [Achieve these	DEC, manufacturers, environmental organizations, retailers, municipalities, consumers, repair organizations and businesses, [solid	<a href="#">The Green Deal Industrial Plan (europa.eu)</a>

		proposals by 2030]	waste advisory boards]	
[Establish funding for repair cafes and training in repair statewide].	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, municipalities, consumers, repair organizations and Businesses, solid waste advisory boards]	<a href="#">Sustainability   Free Full-Text   A Critical Review of the Role of Repair Cafés in a Sustainable Circular Transition (mdpi.com)</a>
[Produce and make public an annual report with program results regarding repair cafes and training in the municipal, nonprofit and private sectors, health of partnerships, a statement of progress and put this information into the public dashboard.]	[DEC]	[Complete first one by 2025]	[Solid waste advisory boards]	It is essential to report on important program results to the public to enable rational planning going forward.
[Establish funding for reuse capacity and characterization studies to show quantity, type, condition, and geographic distribution of reusable consumer products discarded at curbside and transfer stations, and from this information, design Product Evaluation and Repair Facilities (PERF), truck, routing needs, and storage needs.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	Just as MRFs are required in order to have economic and environmentally efficient recyclables processing based on waste characterization studies and curbside collection, municipalities should establish and operate PERFs based on reuse capacity studies. The PERF takes in durables collected from curbside, evaluates condition (i.e., usable-as-is, repairable, salvageable for parts, and recyclable), makes repairs, salvages parts and finds homes for repaired durables.  Highlight the importance of

				<p>PERFs being owned/operated by the public sector or independent NGOs. If they are run by manufacturers/corporate sector, they will not have the desired impact.</p> <ul style="list-style-type: none"> <li> Waste Characterizatio...</li> <li> Clark County Reusable...</li> <li> List of categories for N...</li> </ul>
[Establish funding for construction of PERFs (Product Evaluation and Repair Facilities) in urban areas.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	
[Establish funding for municipal studies of waste prevention and reuse knowledge, attitudes and behavior by the general public.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	Studies will inform where to put effort, funding, and initiatives going forward to have the maximum impact and efficiency.
[Establish funding for pilot studies of targeted waste prevention and reuse educational materials and outreach approaches that maximize participation and diversion.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and	Pilots will inform where to put effort, funding, and initiatives going forward to have the maximum impact and efficiency.








		2030]	Businesses, solid waste advisory boards]	<ul style="list-style-type: none"> <li>📄 REAPIndexWMAantay...</li> <li>📄 Final Dissertation Marj...</li> <li>🌐 Optimizing Recycling i...</li> <li>📄 UnderstandingParticip...</li> <li>🌐 Public Participation for ...</li> <li>📄 Educational strategies ...</li> </ul>
[Establish funding for significantly increased annual waste prevention and reuse education and outreach, statewide.]	[Legislative]	[Propose – 2024  Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, municipalities, consumers, repair organizations and Businesses, solid waste advisory boards]	<p>Merely issuing a brochure with a schedule for pick up once a year only gets cooperation by the “eager beavers”, a small percentage of all people. Others require convenience, peer support, incentives and/or disincentives. Ignoring those ensures a low participation rate in programs. <a href="#">See this presentation for more detail.</a></p> <p><a href="#">Contracting Best Practices: Education and Outreach   US EPA</a></p> <p><a href="#">EPA Recycling Toolkit   US EPA</a></p>
[Support requirements in EPR legislation that requires industry to reduce packaging by 50% by 2030.]	[Legislative]	[Propose – 2024  Enact – 2025]	[DEC, manufacturers, environmental organizations, retailers, consumers,	

		Achieve by 2030]	municipalities, repair organizations and Businesses, solid waste advisory boards]	
[Require at least 50% recycled content by 2030 for packaging sold in New York State.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	
[Establish statewide Pay As You Throw legislation, including pilots to explore how to make it work in multi-family and public housing, and funding to facilitate successful implementation in those settings, even if it means state funding for concierge services so that bags/bins are collected at the unit door so that incentives reach the unit level and unmonitored, commonly-accessible dumpsters and trash chutes can be phased out.]	[Legislative-budget]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	<a href="#">Pay-As-You-Throw: A Fact Sheet for Environmental and Civic Groups</a>  <a href="#">General Public Fact Sheet   Pay-As-You-Throw</a>  <a href="#">Pages 16-17 in this report</a> have a good overview of PAYT along with footnotes to great resources on the topic.
[Establish a tax credit to manufacturers for all consumer products (electronics, appliances) sold in New York State with a manufacturer’s warranty of at least 3 years or if the manufacturer has set up a program to take back used products for reuse or recycling for free.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, municipalities, consumers, repair organizations and Businesses, solid waste advisory boards]	<a href="#">‘Comprehensive Waste Prevention Legislation: A Working Draft’</a>  Department of Commerce establishes 3 years as a minimum definition for durable products.  <a href="#">Analysis of Durability report</a>
[Establish a sales tax credit of 10 cents for each refillable	[Legislative]	[Propose –	[DEC, manufacturers,	<a href="#">‘Comprehensive Waste</a>

package sold in New York State.]		2024 Enact – 2025  Achieve by 2030]	environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	<a href="#">Prevention Legislation: A Working Draft'</a>
[Establish a rebate of 5 cents to consumers for bringing back hangers.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	<a href="#">Dry Cleaners Get Greener With Smarter Use of Plastic Bags and Hangers - Green Business Bureau</a>
[Require collection and recycling of used dry cleaner bags for recycling, provide tax incentive for dry cleaners to use paper instead, and require that the business post where the plastic recycling is taking place.]	[Legislative-b udget]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	<a href="#">Dry Cleaners Get Greener With Smarter Use of Plastic Bags and Hangers - Green Business Bureau</a>
[Repeal sales taxes on the repair or sale of items at thrift, rental, or repair shops.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	<a href="#">'Comprehensive Waste Prevention Legislation: A Working Draft'</a>
[Provide at least \$1,000/year to second hand, repair, refurbishment, reuse, and rental businesses to advertise reuse and their businesses.]	[Legislative]	[Propose – 2024 Enact –	[DEC, manufacturers, environmental organizations, retailers,	

		2025 Achieve by 2030]	consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	
[Establishes a tax incentive of at least \$1,000 per year depending on size of business to retailers that provide at least 10% of shelf space for products in refillable packaging and products in bulk packaging and concentrates.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2030]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	
[Mandate that electronics and appliance stores visibly post notice of their repair services and corresponding prices.]	[Legislative]	[Propose – 2024 Enact – 2025  Achieve by 2027]	[DEC, manufacturers, environmental organizations, retailers, consumers, municipalities, repair organizations and Businesses, solid waste advisory boards]	
<b>Encourage</b> [Require and fund] the use of materials exchanges and sharing platforms through development of resources and facilitate the development of avenues for material reuse and product-sharing opportunities for used goods. [Adapt and require the use, statewide, of the current DSNY material exchange online, <a href="#">Donate NYC</a> , sharing pilot initiative]	DEC	5 years Begin – 2023	Municipalities, industry	Acquire off the shelf platform: <a href="#">Rheaply</a>
[Require DEC to develop guidance for municipalities on best practices to maximize waste prevention and reuse for the general public through education and outreach methods targeted to different demographics and segments of the population who are more and less likely to adopt new zero waste behaviors based on behavior science and studies.]	[DEC]	[Start 2024;  2 years to write studies and achieve action item]	[Municipal solid waste advisory boards]	

<p>[Require and provide grants to local jurisdictions to provide optimal levels of outreach and funding per capita adopting the per capita funding level used by San Francisco and Seattle for this purpose (i.e. Over \$3/person/year) DEC oversees design of messaging and campaigns and their effectiveness through participation rates before and after application of new outreach. Campaigns must address the five personality types in order to maximize participation. Data collected should reflect this as well as effectiveness before and after each campaign.]</p>	<p>[Legislative - budget]</p>	<p>[Start 2024, annual ongoing]</p>	<p>[Solid waste advisory boards, municipal governments, DEC, haulers]</p>	<p><a href="#">See this presentation for reference</a> and these:</p> <ul style="list-style-type: none"> <li> Final Dissertation Marj...</li> <li> Optimizing Recycling i...</li> <li> UnderstandingParticip...</li> <li> Public Participation for ...</li> <li> Educational strategies ...</li> </ul>
<p>[All municipalities shall be required to file a “Zero Waste by 2030” plan with DEC no later than 2025. Municipalities shall be required to update their 2030 plan according to the SWM Act of 1988 and stipulations of this NYS SWMP. DEC will enforce this using fines as motivation.]</p>	<p>[DEC, local jurisdictions]</p>	<p>[2025 deadline]</p>		
<p>Support colleges and universities within New York State in efforts associated with the reuse of materials. [Require the following:</p> <ul style="list-style-type: none"> <li>• Colleges and Universities must submit a study of reuse opportunities on campus and what the infrastructure and staffing costs would be to make use of the reuse opportunities</li> <li>• DEC will require information from colleges and universities regarding their funding needs in order to successfully meet institutional waste reduction and reuse goals.</li> <li>• DEC will provide specific reuse goals to colleges and universities to achieve 90% reuse by 2030, including book exchanges to maximize reuse of textbooks that do not need to be updated annually.</li> <li>• DEC will supply colleges and universities with educational materials to maximize participation by all groups in existing reuse programs and will incentivize</li> </ul>	<p>DEC</p>	<p>5 years Begin – 2024 [Achieve goal by 2030]</p>	<p>Colleges and universities</p>	

<p>development of increasingly ambitious reuse goals and programs.</p> <ul style="list-style-type: none"> <li>• Write guidance of training materials for college and university maintenance professionals to maximize reuse of materials.</li> <li>• Mandate that on-campus dining hall facilities use reusable dishware and cutlery and have dishwashing capabilities and use them. Ban Styrofoam, plastic cutlery and other single-use disposables from campus dining and food service. Mandate reusables (with a return system) for “take-out” food service on campuses.</li> <li>• Require colleges and universities to create and maintain systems/programs for students to swap and donate furniture, electronics, clothing etc at the end of each term. Require colleges and universities to meet a goal to reach 90% reuse by 2030 for reduction of disposal of such items by weight over time.]</li> </ul>				
<p><del>Maintain partnerships within the</del> [Require the] SUNY system to create reduction and reuse <del>guidance</del> [educational] documents and tools for use by the general public and schools [where guidance does not already exist on a municipal level].</p>	DEC	<p><del>Ongoing</del> [Starting 2024; Achievement statewide by 2027]</p>	SUNY ESF[, Solid Waste Advisory Board/Municipal Conservation Boards]	
<p>Partner with the New York State Department of Education and Department of Health to develop and promote sharing table[s] and donation guidance for K–12 schools.</p>	DEC	<p><del>Ongoing</del> Begin 2024; complete by 2026</p>	DOH, SED[, DOE, Parks Departments, Cultural Affairs, Public Works, Sanitation, New York School Nutrition Association]	[Adapt NYC Dept. of Sanitation (DSNY)’s online durable material goods online platform for all NYS public institutions (e.g. educational, health facilities, social services, public venues, public housing, parks, etc.)]
<p>[Improve New York State Share Table guidance, provide</p>	[NYSED,	[Complete by	[ <a href="#">New York School</a>	[ <a href="#">Washington D.C. promotion</a>

posters and a staff information resource and widely promote for school cafeterias.]	DOH]	2024]	<a href="#">Nutrition Association]</a>	<a href="#">USDA Guidelines</a>
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End of DEC draft p. 45

Reduction and Prevention				
[Accomplish a statewide sustainability curriculum to require] E[educate[ion of] students on the connections between waste and the environment through a partnership with the New York State Department of Education <del>to develop curriculum around materials management.</del> <ul style="list-style-type: none"> <li>[The new sustainability curriculum should feature the Zero Waste Hierarchy which prioritizes prevention, reduction, reuse, repair, and compost/recycling in this order and their relative environmental impacts and impacts in comparison to disposal methods.]</li> </ul>	DEC[, DOE]	5 years Begin – 2023; [complete 2027]	SED, school districts[, Climate and Resilience Education Task Force (CRETf)]	<a href="#">Policy DSH-SW-05-01 Solid Waste Management Policy Guidance - NYS Dept. of Environmental Conservation</a>
[Establish and provide quality interdisciplinary pre-K-12 grade appropriate zero-waste climate curricula, including topic areas of reuse, reduction, sorting/recycling, consumption, and waste justice.]	[NYSED]	[Begin 2024, 3 years]	[New York City Department of Education Office of Sustainability]	<a href="#">Cafeteria Culture</a>  <a href="#">GrowNYC</a>
[Prioritize pre-K-12 schools’ achieving “Zero Waste Cafeterias” with student leadership as a critical step towards climate resiliency.]	[NYSED]	[Begin 2024, 1 year]		<a href="#">Sort2Save Student Leadership Cafeteria Sorting Program</a>
[Require pre-K-12 student-driven initiatives like Plastic Free Lunch Day that can be promoted as Climate Action during the schools day]	[NYSED]	[Start by 2025, statewide within 3 years]	[Environmental Education non-profit organizations]	<a href="#">Plastic Free Lunch</a>  EPA Region 2
[Support pre-K-12 student opportunities to share their data with policy-makers.]	[NYSED]	[Start by 2025; statewide within 3 years]		

<p>Encourage local planning units to partner with schools in their jurisdiction[s] to implement [state and local] <b>integrated</b> waste reduction[,] <b>and</b> reuse[/repair, recycling and composting curricula and] programs.</p>	<p>DEC, [DOE]</p>	<p><b>Ongoing</b> [Begin 2024; complete 2026]</p>	<p>Municipalities, school districts, SED</p>	
<p>Create guidance for the public that supports and encourages the use of reusable and refillable containers and packaging [for food] <b>in accordance with state and federal food safety guidelines</b>. [Urge the state and federal government to update food safety guidelines appropriately, referencing the international trend of acceptance of BYO (Bring Your Own) practice.</p> <p>Develop PSA ad campaigns and educational materials for consumers about how and why to adopt reduction, refill/reuse and reusable practices.]</p>	<p>DEC</p>	<p><b>Ongoing</b> [Begin 2024 Finish guidance by 2026; implement statewide 2027.]</p>	<p>Food service operators and establishments, retailers, food stores, DOH, DAM, CSMM</p>	<p><a href="#">Takeaway packaging guidance - City to Sea - What are the options?</a></p>
<p>[Create guidance for designers and manufacturers to create refillable/reusable packaging that isn't for packaging food.]</p>	<p>[DEC]</p>	<p>[Begin 2025; complete 2026]</p>	<p>[Designers]</p>	<p><a href="#">Ecodesign for sustainable products (europa.eu)</a></p>
<p>[Increase recyclability of existing medical waste by identifying certain products that could be recycled with improved technology (e.g. onsite or remote autoclave) and in cases where risk of disease transmission is very small. This should include paper gowns, masks, gloves, cups. This should be in conjunction with a medical reuse study to replace single-use items with reusables outlined above. Require education of medical professionals on the limited materials that need to go into red bags, to prevent the overuse of red bagging discards.]</p>	<p>[Legislative]</p>	<p>[3 years Propose – 2024 Begin – 2026 ]</p>	<p>[DOH, environmental organizations, municipalities, <a href="#">Health Care Without Harm</a>, <a href="#">Global Green and Health Hospitals Network</a>]</p>	
<p>[Draft new legislation to support achievement of 90% diversion/prevention by 2030 where none has been proposed by the governor or legislature.]</p>	<p>[DEC]</p>	<p>[Begin 2024; complete by 2030]</p>	<p>[Solid waste advisory boards, environmental groups]</p>	<p><a href="#">MSWAB zero waste bill</a></p>



<p>[DEC shall advocate to the legislature for the following legislation and educate the public on its impact and importance</p> <ul style="list-style-type: none"> <li>● 2023 Assembly bill 5322/Senate bill 4246 regarding reduced packaging, without using a producer responsibility organization, and in accordance with EPR recommendations in these comments.</li> <li>● 2023 Assembly 6353/Senate 237 legislation regarding Bottle Bill expansion.</li> <li>● Adapt NYC “Choose to Reuse” bill for NYS municipalities and require implementation.</li> <li>● Require ALL Schools have reusable dishwashing capabilities on site or use dishwashing as a service companies to facilitate the switch to reusable dishware.</li> <li>● Require ALL corporate and institutional cafeterias serving 100 or more people per day have and use reusable dishwashing capabilities on site or use dishwashing as a service company to facilitate the switch to reusable dishware.</li> <li>● Legislate bans of Planned Obsolescence Products and fine manufacturers that design products to stop functioning after a period of time or limit in any way access to spare parts and tools for repair. Require labeling of products’ expected useful life.</li> <li>● Legislate ‘Right to Repair’ in that users of electronic devices, household appliances, furnishings, industrial equipment will be able to repair their products with any service provider and not rely on the manufacturer’s official technical service’.</li> <li>● State must provide fiscal incentives to manufacturers for superior designs maximizing product durability, quality, and ease of repair.]</li> </ul>	<p>[Legislative, DEC]</p>	<p>[Begin 2023, and annually]</p>	<p>[Solid Waste Advisory Boards, environmental groups]</p>	<p><a href="#">2023 Assembly bill 5322/Senate bill 4246 regarding reduced packaging.</a></p> <p><a href="#">2023 Assembly 6353/Senate 237 legislation regarding Bottle Bill expansion.</a></p> <p><a href="#">Adapt NYC “Choose to Reuse” bill for NYS municipalities and require implementation.</a></p> <p><a href="#">Legislate bans of Planned Obsolescence Products</a></p> <p><a href="#">New Consumer Agenda: (europa.eu)</a></p> <p><a href="#">Circular economy action plan (europa.eu)</a></p>
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**Goal:**[Develop guidance for jurisdictions] **Support** [to show how to achieve per capita interim diversion goal of 50% by 2026, 75% by 2028, and 90% by 2030 while financially incentivizing] waste prevention, reduction, and reuse within the commercial and industrial sectors in New York State through education, engagement, and policy [conducting attitude and participation studies, developing reuse and repair infrastructure, and employing research driven pilot programs.]

Action Items	Implementa tion Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
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**Reuse and Repair**

<p><b>Support proposals</b> [Enact legislation] that incentivize[s] reus[e]able and refillable solutions across the full spectrum of the packaged goods sectors [in the industrial and commercial sectors], such as reuse system options that promote the primary consumer-facing reuse models—refill at home, return from home, refill on the go, and return on the go. Examples that fit into these models include reuse systems for takeout containers and shipping packaging and bulk refill of household goods.</p> <ul style="list-style-type: none"> <li>• [Conduct a pilot program in partnership with a major shipping company in a small defined area to implement widespread delivery using reusable containers</li> <li>• Provide grants for companies to switch to reusable food containers made of glass, metal, silicone or ceramic.</li> <li>• Modify health procedures or codes so that individuals can use their own reusable clean container or vessel.</li> <li>• Modify the building code and provide funding to jurisdictions and institutions so that there are more free filtered water fountains in stadiums, theaters, conference centers, museums, and other large venues and on the sidewalks.]</li> </ul>	<p>Legislative</p>	<p><b>7-years</b> Propose – 2024 [Enact] <b>Begin</b> – <del>2029</del>[2026; <b>Complete</b> 2029]</p>	<p>DEC, manufacturers, producers, environmental organizations, industry organizations and associations, retailers, food service establishments, municipalities, consumers[, solid waste advisory boards]</p>	
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<p>[Develop relationships with industrial and civil engineer researchers to learn best practices regarding expanding the use of water fountains and refill stations.]</p>	<p>[DEC]</p>	<p>[Begin 2024; complete 2026]</p>	<p>[ASME, ASChE, Society of Civil Engineers]</p>	
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<p><b>Support</b> [Develop] and <b>promote</b> [implement] initiatives that facilitate reuse infrastructure development for businesses [and residences.</p> <ul style="list-style-type: none"> <li>• Prepare and disseminate guidance to all jurisdictions and large generators on the best practices for maximizing reuse and repair of durable consumer products, by jurisdictions and large generators</li> <li>• The legislature / jurisdictions shall structure both financial disincentives (e.g. fees) and incentives for companies, institutions, and residential buildings to follow a new set of reuse “best practices”</li> <li>• Jurisdictions shall give companies with good track records in following reuse/repair best practices preferential bidding status for contracts.]</li> </ul>	<p>[DEC, governor, legislative]</p>	<p>5 years Begin – 2025</p>	<p>ESD, business councils, environmental organizations, municipalities, industry organizations and associations, retailers, food service establishments</p>	<p>One reuse best practice for buildings is to have swap rooms and lending libraries, etc.</p>
<p>[Mandate deconstruction instead of demolition, and that construction and renovation work has materials removed for reuse or recycling. Require minimum reuse and recycling content requirements for new construction materials, in increasing percentages as quickly as the market will bear, and that other construction materials are eco-friendly by being non-toxic, sustainably sourced, and designed for eventual reuse, recycling, or composting. 80% of C&amp;D must be recycled by 2026 and 90% by 2030 as done at Cooper Recycling in Brooklyn.]</p>	<p>[Legislative]</p>	<p>[Enact by 2024]</p>	<p>[Solid waste advisory boards, environmental groups, NEWMOA, deconstruction industry members, C&amp;D recycling industry members]</p>	
<p>[Incentivize reuse/refill by offering tax abatement at a minimum of 5% of current taxes on a sliding scale in stores that designate at least 10% of shelf space for refill/reuse.]</p>	<p>[Legislative]</p>	<p>[Enact by 2024]</p>	<p>[Solid waste advisory boards, reuse industry, environmental groups, retail industry]</p>	
<p><b>Support</b> [Develop] and <b>promote</b> [implement] initiatives that identify and develop opportunities for waste prevention and reuse programs in <b>specific</b> [all] industrial sectors.</p> <ul style="list-style-type: none"> <li>• [DEC will assemble and analyze data for all industrial sectors and their contributions to waste by weight and volume statewide and report findings to the public and press release via UPI and website.</li> </ul>	<p>DEC</p>	<p>5 years Begin – 2024, [Complete 2028]</p>	<p>Industry, environmental organizations, municipalities, NYSP2I[, solid waste advisory board]</p>	<p>[We recommend DEC consider requiring and conducting these kind of reuse capacity studies across the state.</p> <p><a href="#">W Curbside Reuse Chara...</a></p>

<ul style="list-style-type: none"> <li>• DEC will commission a waste characterization study to quantify the volume, weight, category, and condition of reusable discards to determine reuse capacity.</li> <li>• Using this data, DEC will develop waste mitigation strategies in compliance with this Goal's mandate.]</li> </ul>				It is essential to report on important program results to the public to enable rational planning going forward.]
[Mandate commercial waste audits for all commercial structures every other year.]	[Legislative]	[5 years Enact – 2024, Complete 2029]	[Industry, NYSP2I, environmental organizations, municipalities, solid waste advisory board]	
[State shall require all businesses, including thrift stores, to prepare waste prevention plans annually. This will serve as the basis for measuring gains in waste prevention. Waste audits should include repairable condition of discards of durable goods and repaired value of same.]	[Legislative]	[5 years Enact – 2024, Complete 2029]	[Industry, NYSP2I, environmental organizations, municipalities, solid waste advisory board]	

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Work with colleges and universities within New York to research the viability [via a pilot study] of reusable shipping and packaging materials as a waste prevention strategy by engaging with retailers to determine interest in utilization of these options, barriers to incorporation of these products into their shipping operations, and strategies for incorporation into product shipping. [The results must be reported publicly.]	DEC	5 years Begin – 2024 [Complete by 2026]	Colleges and universities, shipping companies, industry, manufacturers, environmental organizations, retailers, municipalities, consumers	[It is essential to report on important program results to the public to enable rational planning going forward.]
[Ban the most difficult to recycle shipping components.]	[Legislative]	[Enact by 2026]	[Environmental groups, transportation carriers]	

Participate in workgroups with national organizations working toward waste reduction solutions to assist with dissemination of information and technical assistance to commercial and industrial sectors.	DEC	Ongoing [Begin 2024]	Industry, environmental organizations, [solid waste advisory boards]	
Create guidance [with the goal of crafting policy] for food service operators, retail food stores, and other establishments to support and encourage reusable and refillable containers and packaging and reduce single-use containers and packaging.	DEC	Ongoing [Complete by 2026]	Food service operators and establishments, retailers, food stores, DOH, DAM, CSMM	
Assess and explore how policy can advance circularity in furniture waste reduction through information gathering via avenues such as stakeholder and industry meetings with commercial and industrial sectors to understand current practices and identify policy and practices that could assist with closing the loop.	DEC	4 years Begin – 2023	Furniture manufacturers, retailers, OGS, environmental organizations, municipalities, consumers	
[Improve New York State Share Table guidance, provide posters and a staff information resource and widely promote for NY Public School cafeterias.]	[NYSED] [DOH]	[1 year]	[New York School Nutrition Association]	<a href="#">Washington D.C. promotion</a> <a href="#">USDA Guidelines</a>
[Support EPR for furniture that requires producers to first reuse and then recycle. See “Key strategies for EPR” section for guidelines to enact successful EPR.]	[Legislative]	[Enact 2024]	[Reuse industry, solid waste advisory boards]	
[Enact a requirement for the reuse or recycling of gypsum wallboard construction debris that requires producers to reuse this gypsum in contained building material uses that do not release small particles or toxic constituents including mold]. Do not permit its use as a soil amendment or for other agricultural uses. See “Key strategies for EPR” section for guidelines to enact successful EPR.]	[Legislature]	[Enact 2024]	[Gypsum wallboard producers, construction materials reuse and recycling industry, NEWMOA, communities by landfills, transfer stations, and railroads that accept gypsum wallboard.]	

<p>Support projects and programs that <del>enhance</del> [build viable statewide infrastructure to make possible] secondary markets, donations [centers], and [mercantile] exchanges for usable products, such as textile goods, [appliances,] furniture, and [building materials] as well as industrial by-products.</p>	DEC	<p><del>Ongoing</del> [Begin 2025]</p>	Municipalities, industry, donation and reuse organizations, recyclers, consumers	<p><a href="#">Donate NYC Directory page for Big Reuse</a></p> <p><a href="#">About Us – Big Reuse</a></p> <p><a href="#">DSNY - refashionNYC Overview</a></p>
<p><b>Reduction and Prevention</b></p>				
<p><del>Support</del> [Require production and inventory accounting in addition to] prohibit[ing]ions of the disposal of textiles that can be reused or recycled[.] <del>and encourages</del> [Legislate] transparency in the supply chain <del>about</del> [concerning] resource consumption, [water usage, toxics and chemicals,] GHG emissions, and social issues, [including but not limited to labor standards and practices, environmental and social justice, across scopes 1-4,] relating to textile production and disposal. DEC estimates that approximately 1.4 billion pounds of clothing and textiles are disposed of in the state each year. In addition to environmental concerns, the apparel and textile industries are also known for below-standard, dangerous, and unsafe working conditions. Supporting this type of legislation will help address these issues.</p> <ul style="list-style-type: none"> <li>• [Require companies to disclose the number of units that are produced each year</li> <li>• Require companies to disclose the number of units that go unsold and what they do with that unsold inventory</li> <li>• Support The Fashion Act</li> <li>• Support public - private investment in textile collection, sorting, and recycling (mechanical and chemical) at scale in regional hubs</li> <li>• Ban the disposal of textiles in the trash, for individuals, companies, and institutions. Provide guidelines on donation protocol]</li> </ul>	<p>Legislative[: Legislation that mandates eco modulation, end of life management (EPR) and production and supply reporting and science-based goal setting to meet climate targets.]</p>	<p>5 years</p> <p><del>Propose</del> [Enact] – 2024</p> <p><del>Begin</del> [Implement starting – 2025]</p> <p>[Finalize implementation] – 2029</p>	<p>DEC, textiles [and apparel] industry, recycling industry, retailers, donation and reuse organizations and businesses, environmental organizations, municipalities, consumers[, Solid waste advisory boards,]</p>	<p>[A program and funding to handle the increased volume of banned textiles is necessary, otherwise, it is likely the material will be disposed of in a landfill or incinerator</p> <p><a href="#">NY State Senate Bill/ Fashion Act 2023-S4746]</a></p> <p><a href="#">Waste Bans, 310 Mass. Reg. 19.017   Casetext Search + Citator</a></p> <p><a href="#">EU Member States Agree Ban on Destruction of Unsold Clothing.</a></p> <p><a href="#">Ecodesign regulation: Council adopts position - Consilium</a></p> <p>Zero Discharge of Hazardous Chemicals (ZDHC) - <a href="#">Roadmap to Zero</a></p>

<p>[The State shall require manufacturers to label products for warranty period and provide information to purchaser on where it can be repaired] (<a href="#">Pg 7 in justification source</a>)</p> <p>[The State shall establish an advance disposal fee payable by manufactures on each reusable product sold to retailers in NY which contains parts which are not removable, serviceable] (<a href="#">Pg 14 in justification source</a>)</p> <p>[The State shall establish an advance disposal fee payable by manufacturers on each product that is designed for early obsolescence or nondurable] (<a href="#">Pg 14 in justification source</a>)</p>	[Legislative]	[Enact 2027]	[Environmental organizations, solid waste management advisory boards]	<p>Corresponding sources of 3 recommendations:</p> <p><a href="#">w MSWAB Waste Preve...</a></p> <ul style="list-style-type: none"> <li>• (pg 7)</li> <li>• (pg14)</li> <li>• (pg14)</li> </ul>
<p>[The State should disperse grants annually to all jurisdictions to establish textile-to-textile recycling infrastructure from design through collection and processing including education and outreach.]</p>	[Legislative, DEC]	[Enact – 2024; Implement starting 2025; Continue annually until all jurisdictions are covered]	[Jurisdictions]	<p><a href="#">Consumer Recycling Education and Outreach Grant Program   US EPA</a></p> <p><a href="#">Playbook — Accelerating Circularity</a></p>
<p>[Support mandatory gypsum recycling from gypsum wallboard construction debris.]</p>	[Legislative: Regulatory Funding]	[Enact by 2024; 50% recycling by 2027; 90% by 2030]	[DEC, NEWMOA, Residents by landfills, transfer stations and rail yards, environmental organizations, solid waste advisory boards]	
<p>[The State should ban products that are or contain any materials (substances) deemed problematic or unnecessary, as defined by the U.S. Plastics Pact.</p>	[Legislative]	[Enact beginning – 2024; Complete by 2030]	[Beyond Plastics, environmental groups, solid waste advisory boards, public and private sanitation collection and processing entities]	<p><a href="#">U.S. Plastics Pact</a></p> <p>Zero Discharge of Hazardous Chemicals (ZDHC) - <a href="#">Roadmap to Zero</a></p>

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<p>Support initiatives that ban or prevent unsold retail goods, including textiles, from going to disposal. [Unsold inventory should be used if it remains usable; recycling should be a last resort. Set specific goals regarding using this data to inform scope of this issue.]</p>	<p>Legislative</p>	<p>5 years Propose [Enact the ban] – 202<del>5</del><sup>4</sup> Begin – 2029</p>	<p>DEC, textiles industry, manufacturers, retailers, donation and reuse organizations and businesses, environmental organizations, municipalities, consumers</p>	<p><a href="#">California Textile Ban - SB 707</a>  <a href="#">Waste Bans. 310 Mass. Reg. 19.017 ]</a>  <a href="#">EU Member States Agree Ban on Destruction of Unsold Clothing</a></p>
<p>Identify New York industrial sectors and develop targeted educational programs to support waste reduction and reuse in those areas. [List NY industrial sectors and state timeline to get educational materials into each sector's hands. Materials should address the goals of the sectors in the CLCPA.]</p>	<p>DEC</p>	<p>5 years Begin – 2024</p>	<p>Industrial sectors, municipalities, ESD, NYSP2I</p>	<p><a href="#">See CLCPA Sectors on page 48 of CLCPA Scoping Plan</a></p>
<p>[Using educational materials and educator-led workshops or seminars, DEC shall] P[p]romote the economic benefits of reduction and reuse [through] in education and outreach efforts to encourage businesses and institutions to make choices aligned with waste reduction and reuse. [DEC must reach 50% of each sector's businesses and institutions by 2026 and 90% of each sector's businesses and institutions by 2030. DEC shall establish educator staffing to accomplish this.]</p>	<p>DEC</p>	<p>5 years Begin – 2023  [50% by 2026 90% by 2030]</p>	<p>Businesses, institutions, manufacturers</p>	<p><a href="#">Study of the Economic Activity of Minnesota's Reuse, Repair and Rental Sectors</a>  <a href="#">Minnesota's reuse, repair, and rental sectors' study</a>  <a href="#">Consumer Recycling Education &amp; Outreach Grant Program</a>  <a href="#">State agencies should lead by example</a></p>



<p>Through existing or future opportunities with colleges and universities within New York, study the issue of unsold retail goods in New York State and develop approaches to prevent the disposal of these unsold goods. This will include researching current production practices and tracking technologies across the value chain, assessing industry and stakeholder needs, and the development of tools that will reduce waste and increase materials exchange and end uses for unsold goods. [The outcome of this endeavor will be to use the data and strategies to advocate and inform policy and legislation.]</p>	DEC	5 years Begin – 2023	Colleges and universities, retailers, manufacturers, donation and reuse organizations	<a href="#">EU Member States Agree Ban on Destruction of Unsold Clothing</a>
<p>Engage in a “rethink waste” campaign aimed at waste generators and manufacturers in various sectors to encourage source-separation, storage, and partnering with off-site processors or reuse and donation businesses and organizations to divert beneficial and usable streams from disposal. [DEC should recommend to the Legislature implementation of statewide legislation, including fees and bans.]</p>	DEC	3 years Begin – 2023	Manufacturers, municipalities, recyclers, donation and reuse organizations	
<p>Provide guidance and support to commercial and institutional entities interested in conducting waste audits. [DEC shall create guidance and instruction about how to implement these audits in conjunction with SUNY. DEC shall provide personnel support, training and seminars for educational purposes at the company level, as well as informational support.]</p>	DEC [SUNY]	Ongoing	Businesses, institutions, municipalities[, NEWMOA, recyclers]	
<p>Support efforts to reduce textile shedding and migration of microfibers into the environment by conducting research with colleges and universities within New York State, developing best practices and educational materials to help reduce the negative impacts of these fibers, and identifying target audiences for these resources. [Phase out synthetic fabrics that shed microplastics by 2035.]</p>	DEC	3 years Begin – 2024	Colleges and universities, textile industry, plastic manufacturers, environmental organizations, municipalities, operators of WWRFs	<a href="#">Domestic laundry and microfiber pollution: Exploring fiber shedding from consumer apparel textiles - PMC</a>  <a href="#">Investigating opportunities to reduce microfibre</a>

				<a href="#">pollution from the fashion industry</a> <a href="#">California Washing Machine Filtration Bill</a>
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Goal: Foster community resiliency by developing programs, supporting communities and organizations, and supporting proposals and initiatives that prevent and reduce waste and promote reuse.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<b>Reuse and Repair</b>				
Support proposals; to restrict; and [reduce the use, sale, and distribution of all] <del>certain</del> single-use products in New York to prevent problematic waste [and motivate consumers, businesses,] and institutions to purchase and use reusable products. [Medically necessitated single-use products will be exempt.]	Legislative	3 years Propose – 2024 Begin – 2026	Retailers, manufacturers, environmental organizations, municipalities, consumers	

<p>[Study medical waste with the goal of reducing single-use items used in medicine and developing reuse models. Require education of medical professionals on waste management, and ensure that recycling is as available as municipal solid waste, red bag biohazardous waste, and sharps disposal containers are.]</p>	<p>[Legislative]</p>	<p>[3 years Begin – 2024</p>	<p>[DOH, environmental organizations, municipalities]</p>	
<p>Support proposals enhancing implementation of and compliance with the New York State Bag Waste Reduction Law including clarifying the definitions of plastic carryout bag and reusable bag, unifying the Plastic Bag Reduction, Reuse, and Recycling Law with the Bag Waste Reduction Law to clarify film plastic collection requirements for covered retailers, and proposals aimed at further reducing paper carryout bag distribution. [Allow residents to participate in enforcement by providing a whistle-blower portal to report violations and establishing share in the reward for providing concrete evidence of violations.]</p>	<p>Legislative</p>	<p>3 years Propose – 2023  Begin[Enact] – 2024</p>	<p>DEC, bag manufacturers, retailers, consumers</p>	<p>This eases the burden of reporting on DEC and will increase compliance</p>
<p>Support the advancement of community level reuse and repair programs and infrastructure across the state, such as the existing network of Repair Café initiatives, to increase product lifespan and waste reduction [through funding, help sourcing training, providing space within the state’s real estate].</p>	<p>DEC</p>	<p><del>Ongoing</del>  [Establish by 2026]</p>	<p>Municipalities, repair services, reuse and repair organizations and businesses</p>	
<p>Establish a targeted grants funding program to support [municipal, industrial, and commercial] reuse [collection and processing infrastructure and programs].</p>	<p>DEC</p>	<p><del>5</del> [3] years Propose – 2024 Begin — 2028</p>	<p>Reuse sector, municipalities[, solid waste advisory boards, environmental organizations]</p>	
<p><b>Reduction and Prevention</b></p>				

[Require catalogs and all mass-mailing solicitations have clear language and a QR code next to the mailing address on how to easily unsubscribe. Establish a fine for companies that continue to send mail 3 months post-unsubscribing.]	[Legislative]	[3 years Propose – 2024 Enact – 2025]	[DEC, retailers, consumers]	
Participate in workgroups with local organizations working toward waste reduction solutions to assist with dissemination of information and technical assistance to local communities.	DEC	Ongoing	Municipalities, environmental organizations	

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Assess and explore how to increase opportunities for furniture and home furnishing reuse for communities.	DEC	3 years Begin – 2024	Furniture manufacturers, retail, municipalities, donation organizations, OGS	
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## Recycling and Recycling Market Development and Resiliency

Recycling is subject to changes in markets, technology, and global policy, which can lead to challenges with business and process consistency. An effective recycling system should be designed and operated and financed in a way that can provide stability and resiliency in the face of changes in markets, policy, and technology as well as environmental threats such as climate change. The following Goals and Actions are intended to help support stable recycling systems.

Goal: Support <b>[and expand]</b> residential recycling through education, outreach, and the advancement of policies.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>[Require recycling bins next to all trash bins in public spaces (i.e. transportation, parks, public venues, street corners, government facilities).</p> <p>Revamp signage to reeducate residents that trash is not recycled, notably where trash cans, for years, have been labeled with “You Can it. We Recycle it!” signage, as at MTA Subway stations.</p> <p>Ensure that what is recyclable in the public spaces is the same as what is recyclable in public and private collection throughout NYC and its suburbs.</p> <p>The same should be required of private and commercial facilities.]</p>	[Legislative and budget]	[2 years Propose – 2024; Enact – 2025]	[MTA, local jurisdictions]	<p>Leading people to be confused about whether trash on the MTA system and elsewhere in and around New York City has recycling pulled out later.</p> <p><a href="#">NYS Executive Order 22 “Leading By Example”</a></p>
<p>[Require unwanted mattresses to be recycled rather than disposed of in the trash, with exceptions for documented mold or pest infestation.]</p>	[Legislative]	[3 years Propose – 2024 Enact – 2026]	[DEC, producers, manufacturers, environmental organizations, municipalities, consumers, solid waste advisory boards]	

[Require all plastic bag, and bottle and can receptacles to be placed in plain view, no more than five yards from the front door.]	[Legislative	[Propose – 2024 Enact – 2025]	[Solid waste advisory boards, local jurisdictions, DEC]	
[Require local jurisdictions to enforce their recycling and organics laws by statute and in the local plans. DEC should oversee that this is done.]	[Legislative, local jurisdictions]	[Complete by 2024]	[DEC]	
[Residents shall be able to easily report violations on any of the requirements stated in this document via the public dashboard.]	[Legislative]	[Propose – 2024 Implement – 2025]	[Solid waste advisory boards, environmental organizations, DEC, local jurisdictions]	
Support proposals, such as EPR for paper and packaging, that motivate producers to reduce the amount of paper and packaging material entering households.	Legislative	5 years Propose – 2023 <b>Begin [Enact]– [2025]</b> <b><del>2027–2029</del></b>	DEC, producers, manufacturers, environmental organizations, municipalities, consumers	See our “Key strategies for EPR” section for guidelines to enact successful EPR.  <a href="#">Solid Waste Management Plan: Health and Hospitals Corporation (1).</a>  <a href="#">Congressional Report Urges U.S. To Set a Policy on Medical Waste</a>
Support proposals, such as the development of an interagency Bottle Bill task force, that will [investigate and] reduce fraud in the Returnable Container Act. [Require task force meetings and findings to be public.]	Legislative	3 years Propose – 2023 <b>Begin [Enact] – 2025</b>	DEC, DTF, DAM, DOB, OSC	
[Ban the sale of film and hard plastics that have no market to recycle the material.]	[Legislative]	[Enact 2025, begin implementation 2026]	[MRFs, recycling industry]	

<p>Support infrastructure development to [expand] <del>increase</del> access to convenient reuse and recycling opportunities for traditional and non-traditional recyclables at multi-family housing units and residential campuses through technical assistance, education, and funding. [This shall include reverse vending machines for redeeming containers, refill stations for water bottles, refill stations for laundry detergent &amp; soap, and bins for clothing donation for each campus and multi-family housing units. On the municipal level, this should include dual bin trucks, local Product Evaluation, Reuse, and Repair Facility (PERF), local MRFs, and composting sites.]</p>	<p>Legislative</p>	<p>5 years Propose – 2025 <del>Begin</del> [Enact] – 2027 [All campuses and multi-family housing units have easy access to reuse and recycling infrastructure by 2030]</p>	<p>DEC, OGS, ESD</p>	
<p>Increase research collaborations and expand upon existing partnerships to improve residential recycling education.</p>	<p>DEC</p>	<p>Ongoing</p>	<p>Municipalities, recycling organizations, CSMM</p>	
<p>Increase partnerships with community organizations to increase the public’s knowledge of correct disposal and recycling practices through community education programs and social media campaigns.</p>	<p>DEC</p>	<p>Ongoing</p>	<p>Municipalities, recycling organizations, businesses, CSMM</p>	
<p>Continue working with the NYS Center for Sustainable Materials Management to further support and expand upon the Recycle Right NY campaign.</p>	<p>DEC</p>	<p>Ongoing</p>	<p>CSMM</p>	

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<p><del>Increase</del> [DEC shall conduct] outreach to households [statewide] to improve awareness of existing product-specific recycling opportunities, for items such as electronics, batteries, paint, etc.</p>	<p>DEC</p>	<p><del>Ongoing</del> [Achieve statewide by 2027]</p>	<p>Municipalities, recycling organizations, CSMM</p>	
<p>[Require local jurisdictions to include in their solid waste management plans annual education, outreach, and access for every household. This shall cover reuse, waste reduction, and recycling programs.]</p>	<p>[Legislative]</p>	<p>[Achieve statewide by 2027]</p>	<p>[Environmental organizations, solid waste advisory boards]</p>	
<p>[Fund Education and Outreach Studies and Pilots and implement findings. Knowing that reaching zero waste depends on ALL New Yorkers participating in recycling and organics collection programs, and that effective recycling education programs depend on reaching and motivating all New Yorkers, not just those who are predisposed to participate, we call on the State to study, pilot test, and implement educational programs designed to inspire all New Yorkers, from the eager beavers who will jump any hurdle enthusiastically, through the spectrum to the individuals most resistant to participating. There should be full understanding of the diversity of the State’s population and its inclination to participate in recycling and other zero waste programs.</p> <p>The State should fund local jurisdictions to undertake local studies, to more intelligently design appropriate outreach and educational materials for the populations they serve.</p> <p>The goal is to increase program participation towards a goal of 100% by 2030. Pilot districts should include different demographics, public housing, the eagerness-to-participate spectrum, and the full range of housing types and densities.]</p>	<p>[DEC, DSNY,]</p>	<p>[Fund 2024; finish studies 2025; implement findings of the studies by 2026]</p>	<p>[Environmental organizations, solid waste advisory boards]</p>	<p>The universe of people is divided into 5 groups in terms of inclination to participate. To be effective, all educational programs and materials must be targeted to achieve high participation rates in all of these 5 groups. Each requires a different set of educational and programmatic approaches to reach them successfully. These groups are:</p> <ol style="list-style-type: none"> <li>1. those who are eager to do the behavior change,</li> <li>2. those who will do it if it’s convenient and won’t cost them time or money,</li> <li>3. those who will do it if their peers (friends, family, neighbors, role models) are doing it,</li> <li>4. those who will only do it if they receive monetary incentives,</li> <li>5. Those who will only do it</li> </ol>



				<p>if it will cost them (e.g., money, job, freedom) not to do</p> <p>Academic surveys with significant sample size and studies have been conducted in the 1990s and 2000s in New York City (2 pages filled out in person) and there are published reports on them. One of many facts learned in 2004-2005 is that 60% of the respondents didn't recycle every time because they either forgot or were confused. This is the fault of inadequate education. The City's education program will continue to fail without adequate funding to strategically design a program that will succeed in addressing any and all barriers. DSNY's education program has failed to achieve more than a 50% capture rate. Since New York City's programs are only reaching those most ready to participate, we should not be surprised that the capture rate is rarely above 50%.</p>
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Emphasize outreach efforts by local planning units in review of Local Solid Waste Management Plans (LSWMPs) and biennial updates.	DEC	Ongoing	Planning units, municipalities	
Expand funding and promotion of MWRR grant opportunities to improve municipal recycling physical infrastructure and municipal education, promotion, planning, and coordination programs. Where possible, prioritize new grant funding opportunities for projects located in DACs and/or that have positive climate change outcomes.	DEC, [Legislative]	3–5 years Funding Increase  Request – 2024 Promotion efforts – Ongoing	Legislature, municipalities	
Improve the implementation of the Returnable Container Act (Bottle Bill), by creating a public data system of all the beverages where a deposit has been initiated.	DEC	3 years Funding Request – 2024 Begin – 2025	Legislature, deposit initiators, redemption centers, DTF, DAM, DOB, OSC	
Improve the implementation of the Returnable Container Act by advancing regulations that clarify key requirements[, such as requiring all receiving locations to accept all eligible bottles and cans, having a DEC staff for enforcement, and making it easy for residents to report to DEC].	DEC [Legislative, for additional requirements ]	3 years Propose – 2023 Begin –2025	Deposit initiators, redemption centers, DTF, DAM	It is essential to report on important program results to the public to enable rational planning going forward.

**Goal: Support commercial, industrial, and institutional waste generators to improve recycling practices through education and technical assistance.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>Support proposals, such as EPR for paper and packaging, that motivate producers to reduce the amount of paper and packaging material entering businesses and institutions. [Make sure to implement best practices for EPR, noted in our comments elsewhere.]</p>	Legislative	<p>5 years Propose – 2023 Begin – 2027–2029</p>	DEC, producers, manufacturers, environmental organizations, municipalities, consumers	<p> Copy of Written Te...</p> <p>The SWABs have written other testimonies, position papers, notes from our 2/2/23 EPR hearing (cited elsewhere in document)</p>

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<p>Develop and distribute technical guidance documents, resources, and tools about alternative business practices, technologies, and options related to recycling.</p>	DEC	<p>3 years Begin – 2024</p>	Municipalities, recycling organizations, CSMM	
<p>Encourage and educate about existing predetermined beneficial uses of materials such as glass for cement and aggregate, and other beneficial uses for material traditionally considered waste products which are currently authorized[, so long as they do not expose people or the environment to toxic chemicals. Repeal beneficial use authorizations for ash, sewage sludge, or other contaminated waste streams, and for any uses of wastes as fuel to be combusted or pyrolyzed.] Identify procedures by which generators or users can petition for case-specific beneficial use determinations. [Any beneficial reuses must not spread toxics in the environment.]</p>	DEC	<p>3 years Begin – 2023</p>	Municipalities, recycling facilities, glass industry, construction industry[, environmental organizations, solid waste advisory boards]	

<p><del>Support innovation in traditional waste product alternative uses to retain value and divert waste.</del> [Ban the processing of mixed solid waste including chemical recycling, incineration, autoclaving, drying and shredding for use as fuel in cement kilns, land application of any contaminated waste streams such as sewage sludge,, or ash, or other uses that concentrate or spread toxics in the environment.]</p>	DEC	Ongoing	Municipalities, recycling organizations, CSMM[, environmental organizations, solid waste advisory boards]	
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**Goal: Partner with K–12 schools, colleges, and universities to educate, engage, and empower students to develop better [prevention, reuse, and] recycling habits and enhance school [prevention, reuse, and] recycling programs.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>Support colleges and universities, including through working with SUNY ESF and the Center for Sustainable Materials Management, in improving their [prevention, reuse, and] recycling programs through the development of guidance, education material, and technical support.</p>	DEC	Ongoing	Municipalities, colleges and universities within New York State, CSMM, recycling organizations, recyclables processors[, environmental organizations, solid waste advisory boards]	
<p>Encourage local planning units to partner with schools in their jurisdiction to implement integrated [prevention, reuse, and] recycling programs.</p>	DEC	Ongoing	Planning units, school districts[, environmental organizations, solid waste advisory boards]	

**Goal: Reduce waste disposal through innovative policy approaches [including incentives and disincentives].**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>Support [Enact] a disposal disincentive surcharge [of \$15] (fee per ton) [to be paid to New York State] on all waste landfilled or <del>combusted</del> incineration, combustion, pyrolysis, gasification] in New York State and all waste generated in New York State being sent for landfilling or incineration, combustion, pyrolysis, gasification <del>combustion</del> out-of state to provide financial support [solely] for [prevention,] reduction, reuse, and recycling projects [and programs. The legislature shall set the per ton surcharge fee to ensure across the board payments. The legislation shall include a scheduled surcharge increase of \$2 every 5 years. The surcharges shall be used to fund local prevention, reuse, recycling and composting programs. DEC shall write an annual report quantifying the surcharges across the state, showing year-to-year trends and put this information in the public dashboard.]</p>	Legislative	3 years Propose – 2024 Begin – 2027	Municipalities, waste industry, businesses, consumers[, environmental organizations, solid waste advisory boards]	See Alameda County, Link: <a href="#">StopWaste</a>

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<p>Support [and enact legislation] <del>proposals</del> for a minimum level of recycled content in <del>certain</del> products and packaging to support end markets. [There should be minimum levels set for metal, glass, paper, plastics and cardboard products and packaging. The Legislature shall set a schedule that increases recycled content 10% every two years until products use the highest percentage of recycled content that can technically and safely be used for the material in question. This should be done in conjunction with banning virgin plastics production, with a carve-out for medically necessitated plastic. Plastic reduction shall be prioritized over plastic recycling in all cases]</p>	Legislative	6 years Propose – 2023 <del>Begin</del> [Enact]– [2024] <del>2029</del>	Municipalities, waste industry, businesses, consumers [solid waste advisory boards]	
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<p>[Require] <del>Support policy approaches that</del> increase[s in] the capture and use of building deconstruction materials and recovered aggregate for a variety of applications. This may include government requirements (e.g., procurement standards, bid specifications, etc.) to include recycled or reused deconstruction materials[ in all new construction and renovation]. [This might also include tax breaks, rent subsidies, or dedicated space for nonprofits that accept deconstructed materials to bolster local reuse infrastructure.</p> <p>By 2027, based on granted permits per month, half of all buildings slated for removal should be deconstructed. By 2030, all buildings and structures slated for removal must be deconstructed, wherein whatever is reusable and recyclable is recovered. All C&amp;D that cannot be reused for new construction must be recycled, where possible, by 2030. These should be implemented by permitting and enforced with inspection, with fines issued for non-compliance.]</p>	Legislative, DEC	<p>5 years Propose – 2024</p> <p><del>Begin – 2026</del></p> <p>[Interim goal – 50% by 2026</p> <p>Final goal – 90% by 2030]</p>	<p>OGS, ESD, municipalities, general contractors, construction industry [, deconstruction industry, solid waste advisory boards]</p>	<p>See what NYS DEC must do in <a href="#">NEWMOA's white paper</a></p> <p><a href="#">Gypsum Wallboard: Problems, Recommendations, &amp; the Current State of Recycling - NEWMOA</a></p> <p><a href="#">Reuse Innovation Center</a></p> <p><a href="#">About Us – Big Reuse</a></p> <p><a href="#">Donate NYC Directory page for Big Reuse</a></p>
<p><del>Support policy approaches that incentivize</del> Critically assess the pros and cons of public-private partnership for recycling facility development. Study and develop guidance for best practices for public-private partnerships insofar as economic and environmental costs and benefits.</p>	Legislative, DEC	<p>5 years Propose – 2025 Begin – 2030</p>	<p>Municipalities, ESD, recycling facilities, construction industry</p>	
<p>[Require] <del>Promote</del> source separation and recycling in the transportation sector (i.e., public and private paved surface construction and maintenance).</p>	DEC	<p>Ongoing</p> <p>[100% by 2030]</p>	<p>DOT, municipalities, construction industry</p>	<p>For example rebar recovery, crushed concrete used for pipe bedding and asphalt (millings) used construction base or reused as key ingredient in new asphalt</p>
<p>Partner with colleges and universities [and the recycling industry] within New York to provide technical information to product designers and manufacturers to educate them on packaging and product design that is compatible with recycling systems in North America.</p>	DEC	<p>3 years Begin – 2024</p>	<p>Colleges and universities, CSMM, product packaging manufacturers, [product and packaging</p>	

			designers,] recycling industry	
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Goal: Increase knowledge of and pathways for increased textile[,] and furniture[, and all durable product] circularity.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Support <del>EPR</del> [legislation] for the management of clothing, shoes, other textiles, [mattresses,] <del>and</del> furniture[, and all other durable, reusable products].	Legislative	5 years Propose – 2024 <del>Begin</del> [Enact] – 202[5]9	DEC, textiles industry, manufacturers, retailers, environmental organizations, municipalities, waste management industry, consumers	<a href="#">Link to NYS Senate Bill 2023-S6419A</a>  ☰ SWAB joint statement ...
<del>Promote</del> [Expand] existing procurement guidelines and necessary updates to <del>encourage and support</del> [implement] sustainable textile purchasing and textile recycling by state agencies. [State agencies must report to the public on compliance with the governor’s executive order in 2022 by 2023.]	DEC	<del>5 years</del>  Begin – 2024 [2022 Finish by 2024]	OGS, textiles industry, textiles retailers	<a href="#">NYS Executive Order 22 “Leading By Example”</a>  It is essential to report on important program results to the public to enable rational planning going forward.
[Expand] <del>existing</del> procurement guidelines and necessary updates to <del>encourage and support</del> [implement] sustainable <del>textile</del> purchasing and <del>textile</del> recycling [of durable consumer products and packaging] by state agencies	DEC	[Begin 2024, ongoing]	[OGS, environmental groups, solid waste advisory boards]	

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Work with colleges and universities within New York to better understand textile donation and recycling rates and current limitations in order to create a roadmap to increase textile diversion and recycling in New York and reduce exports and disposal. [Publish studies every 2 years and include on the public dashboard.]	DEC	3 years Begin – 2024	Colleges and universities, textiles industry, CSMM, textile donation, recycling, and reuse organizations	
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**Goal: Utilize collaborative partnerships to research and promote recycling strategies and strengthen information-sharing networks for recycling.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Maintain partnerships with colleges and universities within New York to create guidance documents and tools to create recycling education programs informed by science for use by the general public, businesses, government, schools, and other organizations. [DEC shall make public an annual report with program results, health of partnerships, a statement of progress]	DEC	Ongoing	Colleges and universities, municipalities, businesses, institutions, consumers, school districts	It is essential to report on important program results to the public to enable rational planning going forward.
Facilitate relationships among recycling coordinators from planning units in each DEC Region by coordinating the formation of regional materials management working groups to encourage information sharing, collaboration, and problem-solving for regional materials management challenges. [DEC shall make public an annual report with program results, health of partnerships, a statement of progress]	DEC	Ongoing	Planning units, municipalities, CSMM	It is essential to report on important program results to the public to enable rational planning going forward.
Continue to work with NYSP2I to provide outreach, education, and technical assistance across all sectors to utilize raw materials more efficiently, utilize manufacturing by-products on-site, and identify reuse opportunities for	DEC	Ongoing	NYSP2I and [SUNY]	It is essential to report on important program results to the public to enable rational planning going forward.



manufacturing by-products. [DEC shall make public an annual report with program results, health of partnerships, a statement of progress]				
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Goal: Support efforts in New York and the Northeast to build capacity for processing secondary material commodities collected for recycling.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Support colleges and universities within New York in researching [topics like] recycling market challenges, plastics recycling, [hard-to-recycle packaging] and glass processing innovations for New York State. [DEC shall make public an annual report with program results, health of partnerships, a statement of progress]	DEC	Ongoing	CSMM, Center for Glass Innovation, Center for Plastic Recycling Research and Innovation, NYSP2I [MRFs and other processing facilities]	It is essential to report on important program results to the public to enable rational planning going forward.

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Goal: Encourage the development and expansion of recycling markets by demonstrating the state’s ability to “lead by example.”				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Support the GreenNY Council to advance greater purchasing of products with recycled content as well as the purchase of recycled products (compost, etc.) by state agencies. [All products and packaging purchased by state agencies must have at least 90% recycled content by 2030]	The GreenNY Council	Ongoing  [Complete 90% recycled content – 2030]	DEC	<a href="#">NYS Executive Order 22 “Leading By Example”</a>

Support the GreenNY Council in their work with individual state agencies on conducting waste audits and other materials management improvements.	The GreenNY Council	Ongoing	DEC	<a href="#">w INTRO 482a of 1998....</a> <a href="#">w Intro 482 fact sheet.doc</a>
Support the GreenNY Council in their effort to ensure all state agency operations have strong [prevention, reuse,] recycling and organics diversion programs. [DEC shall make public an annual report with program results, health of partnerships, a statement of progress.]	The GreenNY Council	Ongoing	DEC	It is essential to report on important program results to the public to enable rational planning going forward.
[Mandate organics separation and collection in public school cafeterias and prioritize for use in this order: food for people, feed for animals, and processing as compost. Adopt and follow the Institute for Local Self-Reliance Food Waste Hierarchy.]	[NYSER]			<a href="#">Hierarchy to Reduce Food Waste &amp; Grow Community</a>

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<b>[Goal: Aggressively Phase Out Single Stream Recycling throughout the state in order to reduce contamination and increase marketability of recyclable commodities. Replace Single Stream with Dual Stream or Curb-Sort.]</b>				
<b>Action Items</b>	<b>Implementation Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
<p>[Conduct a whole city pilot to compare the performance and economics (revenues, capital investment and operating expenses) from Single Stream vs. Dual Stream.</p> <p>Examine and document recycling rates, contamination rates, and economics.</p> <p>Examine ways to maximize the value and recycling (not downcycling) of glass. Make results available on public dashboard.]</p>	[DEC]	[Complete by 2026]	[solid waste advisory boards, MRFs]	Numerous studies document the failure of Single Stream Recycling programs (systems?) to find good, domestic markets for most of their recyclables due to high levels of contamination, often approaching 25% of the total collected. While Single Stream may boost the quantity of materials

				<p>collected in recycling bins, this system also comes with unintended consequences, including skyrocketing contamination rates, which can approach 25%, increased rates of wish-cycling by well-intentioned consumers, and deepening skepticism about the fate of recyclables. In addition, the cost per ton of sorting of Single Stream recyclables by low wage workers at MRFs has ballooned, impacting municipalities that provide curbside collection and private waste haulers, removing any financial incentive from both local government and waste companies from promoting and expanding recycling services. While the collection of Dual Stream recycling is more costly than Single Stream collection, savings can be achieved through lower sorting costs and the greater marketability and value of commodities from Dual Stream programs.</p>
<p>[Purchase 3 EV Curb-Sort collection vehicles for 3 pilot / demonstration projects. The cost of these vehicles is comparable to Single Stream recycling trucks. As</p>	<p>[DEC, municipalities]</p>	<p>[Pilots begun by 2025]</p>	<p>[Municipal and private haulers]</p>	<p>Curb-Sort takes prevention of contamination in recycling a step further and results in added efficiencies. Electric</p>

<p>EVs, their maintenance requirements are much lower and their life expectancy is greater. As an added bonus, they eliminate the need to pay costly MRF tipping fees.]</p>				<p>Curb-Sort vehicles are achieving popularity in municipalities in the UK and Ireland, resulting in large increases in recycling rates and marketability, while eliminating the need to contract with a MRF entirely. These Curb-Sort collection vehicles have 10 compartments, including one for food waste, and provide for rapid material off-loading. This innovation results in greater consumer confidence and participation in recycling. Instead of a municipality or small waste hauler having to take recyclables to a MRF, in many cases outsourcing this essential service and losing the ability to benefit from the sale of the recyclables, a Curb-Sort program would only need a Central Recycling Facility, where each recyclable commodity would be separately baled and aggregated in preparation for sales. Thus the municipality or local waste hauler could accrue direct benefits from increasing consumer diversion to recycling and reduced contamination rates.</p>
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				Link: <a href="#">Romaquip</a>
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## Product Stewardship and Extended Producer Responsibility

Product stewardship ~~is a shared responsibility approach that can be either voluntary or~~ [shall be] required by law. EPR [shall be] ~~is~~ a mandatory type of product stewardship requiring the passage of legislation to ensure a manufacturer's responsibility for its products extends to postconsumer management of those products[, including fiscal responsibility for collection through reuse and recycling]. EPR policy [shall] shifts ~~s~~ the financial and managerial responsibility (with [well-funded state] government oversight) of end-of-life products [to] upstream to the manufacturer and away from the public sector and consumers. EPR programs ~~can~~ [shall] also be structured to provide incentives to manufacturers to incorporate environmental considerations into the design of their products and packaging. [Local initiatives have resulted in bottle bills, mandatory recycling, banning inappropriate packaging materials, banning recyclables and compostable and repairable items from landfills and incinerators, and banning incineration of waste. Extended Producer Responsibility and Package Reduction legislation should incorporate wherever and whenever possible the solutions with proven results.]

[DEC shall make public in a public dashboard an annual report with program results, health of partnerships, and a statement of progress.] The effects of comprehensive product stewardship and EPR can thread across waste prevention, waste reduction, reuse, and recycling, depending on the product or commodity [and if effectively designed, implemented and enforced can serve in achieving Zero Waste to landfill and incineration by 2030 goal]. When manufacturers are required to move away from disposal and toward [repairability, refill, reuse and reduction and end of life management that supports] recycling management, it drives future product and commodity decisions toward waste prevention, reduction, and reuse ideals as part of the product or commodity design, as well as designing for better recyclability for any materials that may remain at the end of life. Accordingly, while product stewardship and EPR is an important stand-alone Focus Area presented here, these strategies will also be referenced ~~below~~ [above] in both the Waste Prevention, Waste Reduction, and Reuse Focus Area[s], as well as the Recycling and Recycling Market Development and Resiliency Focus Area[s,] as the policy impacts are vital components of those Focus Areas as well.

### [Guidelines for Zero Waste policies with regard to EPR for packaging and products

- Surcharges on products and packages to be levied on producers.
- Surcharges applied to companies proportional to packaging volumes associated with covered packaging. No surcharge for companies and institutions that do not produce products, e.g., libraries, hospitals, retail.
- Aggregated surcharge funds should be managed by a New York State agency through a sequestered account.
- Producer Responsibility Organization structures should be avoided to eliminate potential conflict of interest.

- Aggregated surcharge funds should be allocated for Zero Waste reuse, recycling and composting infrastructure and source reduction, education and outreach programs and behavior research, capital for businesses, government agency and NGO enterprises and programs, training for state and local public servants, additional staff levels and supporting expenditures.
- All program transactions related to EPR/PRA should be transparent with regular reporting to the public on the dashboard..
- EPR for targeted products must be closely regulated to prevent such examples as producers incinerating carpets, mattresses and paint, or shredding of e-scrap products and parts that can be reused and/or refurbished.
- EPR for toxic materials must be taken back by industry at industry expense to incentivize manufacturers produce less toxic products and packaging and assure proper disposal of these hazardous materials such as batteries, mercury switches, and medical apparatus.
- Mandatory requirements for reduction of packaging over the next decade. i.e.,, Bottle bills must be independent of EPR.
- Mandatory refillable containers to be phased in over 15-year period. 10% market share by 2025, 25% market share by 2030, 50% market share by 2035, and 100% market share by 2040.
- Mandatory Zero Waste packaging (recyclable, compostable, reusable by 2030).]

Key strategies to achieving the ~~2032~~[2030] and 2050 vision and Goals of the Plan are [P]roduct s[S]tewardship and Extended Producer Responsibility (EPR)[. Zero waste by 2030 requires ending incineration and conventional landfilling by 2030 and can be achieved by:

- Quantifying and reporting to the life cycle health and environmental impacts created by different sectors (e.g. trucking, landfill, incineration, other facilities) using a life cycle analysis tool capable of analyzing global warming pollutants, toxic chemical pollutants (cancer and non-cancer effects), particulate matter emissions, and smog formation from emissions of nitrogen oxides and volatile organic compounds (VOCs) and their impacts on asthma and respiratory health.
- Quantifying and reporting should include life cycle analysis of waste prevention and reuse initiatives.
- So that decision makers can understand the relative harm of all impacts considered, the LCA shall present the results so that the global warming and other health and environmental impacts can be evaluated side-by-side using the same units, such as a monetized social/environmental harm indicator.
- To avoid double-counting with climate models, all biogenic carbon emissions should be counted in the global warming analysis, and not assumed to be discounted or offset for one industry and not another unless the use of a certain disposal method over another causes additional plant growth that would not otherwise occur.
- Quantify and report, including to the public on the dashboard, the] ~~to minimize the~~ environmental impacts from the improper end-of-life disposal of products and packaging[, including truck, train and barge emissions, landfill and incinerator emissions, and effluents to groundwater].

Goal: Promote the development and passage of EPR legislation for packaging <del>and paper</del> products [that favor waste prevention, refill, reuse and at end of life management effective recycling in that order of priority].				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p><del>Support broad packaging and paper product legislation to include all types of packaging and all paper products by all generators, to have the greatest effect on waste reduction, reuse, and recycling possible.</del> [Enact legislation and enforcement that mandates packaging and paper product standards for all types of packaging that will achieve Zero Waste to landfill and incineration by 2030 goal through specifications that favor refill, reuse and then effective recycling as end of life management in all sectors (residential, commercial and institutional). Effective recycling means at least 90% program participation and material processing and marketing.]</p>	Legislative	5 years  Propose – 2023 <del>Begin</del> [Enact]– <del>2027–2028</del> [2024]	DEC, producers, manufacturers, environmental organizations, municipalities, retailers, consumers[, solid waste advisory boards]	

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Goal: Work to improve the state’s existing product stewardship and EPR programs.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<b>Electronic Equipment Recycling and Reuse Act</b>				
<p>Support overall improvements to e-Waste program performance, <del>for example, by moving away from a target-based collection approach to a consumer convenience model.</del> [by integrating right-to-repair legislation and manufacturing funded monthly curbside or drop-off collection for processing by Product Evaluation Repair Facility (PERF) to repair what can’t be recycled. DEC shall make public an</p>	Legislative	3 years Propose – 2024 <del>Begin</del> [Enact]– 2027	DEC, covered electronic equipment manufacturers, collectives, e-waste recyclers [with municipal PERF facilities for e-waste	It is essential to report on important program results to the public to enable rational planning going forward.



annual report with program results, health of partnerships, a statement of progress. Address deficiencies in e-waste EPR program that allow repairable and reusable electronics to be shredded rather than incentivizing the repair and resale of discarded electronics.]			repair and reuse], e-waste Consolidation facilities, e-waste collection sites, out-of-state collectors, retailers, municipalities, consumers[, solid waste advisory boards]	
Provide outreach to the regulated community and consumers regarding the manufacturers' requirements of recently adopted Part 368 regulations for electronic waste (e-waste) collection, recycling, and management and how the regulations provide for the free and convenient collection of e-waste from consumers in New York State. [Ensure that e-waste is managed to prioritize reuse first, and that all recycling is done without the use of incineration, prison labor, or dumping on developing nations. Provide most of these protections by requiring all e-waste recyclers to be e-Stewards certified, and have the state provide the extra layer of assurance against incineration through its own certification, since e-Stewards does not fully guard against incineration. Do not allow incinerator corporations such as Covanta to handle e-waste produced in the state.]	DEC	Ongoing, [Initial outreach by 2025]	Covered electronic equipment manufacturers, collectives, e-waste recyclers, e-waste consolidation facilities, e-waste collection sites, out-of-state collectors, retailers, municipalities, consumers, e-Stewards	<a href="#">Comparison of e-Stewards to weaker R2 certification: R2/E-Stewards Comparison Chart</a>
[Partner with repair community as well as vocational, engineering and electronic educational programs to provide e-waste for use in teaching improved design, repairability, and durability.]	[DEC]	[Complete initial outreach to jurisdictions statewide by 2027]	[SUNY, solid waste advisory boards, repair community, career and technical educational institutions]	

### Rechargeable Battery Recycling Law

Support amendments to the Rechargeable Battery Law to require the collection and recycling of additional consumer battery types (e.g., alkaline, [lithium, solid state,] electric and hybrid vehicle batteries, etc.) <del>to an already successful EPR</del>	Legislative	3 years Propose – 2024 [Enact] <b>Begin</b>	DEC, rechargeable battery manufacturers, retailers, consumers	Lithium ion batteries started about 200 fires in NYC in 2022, and have become the leading cause of fire deaths
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<p><del>program</del>. [Require batteries sold in New York be designed so that plastic casings and any halogenated material can be safely and affordably removed prior to smelting or any other high-temperature recycling process.]</p>		<p>– 2027</p>		<p>in the city. As of May 30, 2023 there had been 92 lithium battery fires in the city, which resulted in 9 deaths and 64 injuries. In March 2023, NYC adopted a package of laws that bans the sale or lease of e-bikes and scooters that fail to meet recognized safety standards and prohibits the refurbishing of lithium batteries, from The New York Times, June 20, 2023, “4 Die in Fire that began at E-Bike Shop Near Chinatown”</p>
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<p>Increase program compliance [through providing adequate funding for] monitoring and enforcement in accordance with existing statute to improve manufacturer engagement, retailer participation, and consumer convenience.</p>	<p>DEC</p>	<p>Ongoing</p>	<p>DEC, producer responsibility organizations, rechargeable battery manufacturers, retailers of rechargeable batteries and rechargeable battery-containing products, consumers</p>	
<p><b>Mercury Thermostat Collection Law</b></p>				
<p>[Draft and s]Support amendments to the existing law to</p>	<p>Legislative</p>	<p>2 years</p>	<p>DEC, thermostat</p>	

extend the [Mercury Thermostat Collection] program beyond the January 1, 2024 sunset date and to improve overall program performance. [Amend law to include collection of all mercury containing items.]		Propose – 2023 Effective – 2024	manufacturers, contractors, [consumers,] environmental organizations, [solid waste advisory boards]	
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### Postconsumer Paint Collection Program

Amend the Part 373 Universal Waste regulations and the Part 360 series regulation to help streamline the management of postconsumer paint in New York. [Ban incineration of paint and develop alternatives for safe recycling or disposal of oil-based paints. Disallow paint disposal (including combustion of any sort) at facilities in environmental justice communities.]	DEC	1 year Underway Effective – 2024	Paint industry, PaintCare, municipalities, paint retailers, environmental organizations	Note: Paintcare takes oil-based paints to a low-income EJ community in South Carolina to burn them in a large cement kiln.
Promulgate regulations to implement the Postconsumer Paint Collection Program Law and to improve overall program performance. [Law is voluntary, should be mandated including “big box” stores.]	DEC	3 years Propose – 2025 Effective - 2027	Paint industry, PaintCare, municipalities, paint retailers, environmental organizations	
Prioritize development of a recycled-content paint specification under Executive Order 4 to help promote and support the paint recycling infrastructure in New York State[, while avoiding the recycling of paint containing PFAS].	DEC	2 years Begin – 2023 Effective – 2025	OGS, paint manufacturers	Recycling paints that contain PFAS is problematic: <a href="#">PFAS in Paints</a>  Of the 94 samples screened for Total Fluorine using the analytical method PIGE, approximately 50% had detectable levels of fluorine, an indicator of PFAS. Fluorine was detected in all brands of paint and within brands, sample detection

				rates ranged from 30%-92%. In paint products with measurable fluorine, concentrations ranged from 42 to 688 parts per million (ppm) total fluorine.
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<b>Pharmaceutical Take Back Act</b>				
Continue to assist the Department of Health (DOH) in ensuring the state's drug take back program is as convenient as possible <del>to state residents</del> , effective (with recovery and diversion data made publicly available) and enforced.]	DOH	Ongoing	DEC, [environmental groups, WRRFs, solid waste advisory boards]	
[Ban the use of combustion/incineration for disposal of collected pharmaceuticals. Establish safe non-burn alternatives, possibly including a supercritical water oxidation facility in New York for the safe dismantling of pharmaceuticals without incineration or water contamination.]	[Legislative]	[2 years Propose - 2023 Effective - 2025]	[DEC]	<a href="#">See Appendix A for Justification</a>
[Require that all pharmacies in New York State have at least one pharmaceutical take back bin and that it is serviced at least once per month]	[DOH]	[Starting 2023; complete by 2025]	[DEC]	

<b>Carpet Collection Program</b>				
Work with the regulated community to develop and implement the newly enacted Carpet Collection Program, which requires carpet producers to either individually or collectively establish an acceptance program for end-of-life carpet by July 1, 2026 in a manner free and convenient to	DEC	Ongoing	Carpet producers, artificial turf producers, producer responsibility organization(s), retailers, installers,	

<p>NYS consumers. [Department should review end of life management processes, to ensure that end of life management of carpet is environmentally sound and does not include combustion/incineration.]</p>			<p>consumers, municipalities, recyclers, carpet stewardship advisory board members [, solid waste advisory boards]</p>	
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<b>Goal: Promote the development and passage of EPR framework legislation, as well as EPR legislation for priority products.</b>				
<b>Action Items</b>	<b>Implementation Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
<p>Support creation of a consistent framework for new EPR programs. The “framework” EPR legislative approach would establish a comprehensive process for recommending, developing, proposing, and passing new EPR laws that follow best practices (e.g., producer responsibility and engagement, sustainable program funding, sufficient consumer convenience, government compliance oversight, and comprehensive consumer education and outreach, etc.). [Evaluating all proposed legislation and encouraging new legislation that adheres to the goals set in the NYS State Solid Waste Management Plan for effective EPR, specifically:</p> <ol style="list-style-type: none"> <li>1. Require that all bills on this topic mandate 50% reduction of packaging over ten years;</li> <li>2. Ensure that any packaging reduction legislation disallows the 14 known toxics and provide a schedule to disallow any toxics discovered in the future;</li> <li>3. Establish eco-modulation fees significant enough to phase out problematic packaging at the source, rather than build more infrastructure to accommodate end-of-life management;</li> <li>4. Adhere to the internationally peer-reviewed Zero Waste Hierarchy as codified by the Zero Waste</li> </ol>	<p>Legislative</p>	<p>5 years Propose – 202[4]5 Begin[Enact]– 202[5]6</p>	<p>DEC, product manufacturers, environmental organizations, municipalities, retailers, consumers[, solid waste advisory boards]</p>	<p>Link: <a href="#">SWAB joint statement on Packaging Reduction Legislation in New York State - March 2023</a></p> <p>Ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances (PFAS), lead and lead compounds, hexavalent chromium and compounds, cadmium and cadmium compounds, mercury and mercury compounds, benzophenone and its derivatives, halogenated flame retardants, perchlorate, formaldehyde, toluene, polyvinyl chloride, polystyrene, or polycarbonate.</p>

<p>International Alliance that prioritizes waste reduction, refill, reuse, and recycling, over disposal and forbids incineration;</p> <ol style="list-style-type: none"> <li>5. Adhere to reduction targets currently in New York State statute and the CLCPA;</li> <li>6. Establish a Packaging Use Reduction Institute to provide technical support to producers, especially small businesses, adequately funded by Packaging Reduction Act's funding source;</li> <li>7. Prevent any waivers or loopholes, and provide sufficient resources for enforcement by the Department;</li> <li>8. Ensure that Packaging Reduction and Recycling Organizations remain responsible for meeting their obligations under antitrust laws;</li> <li>9. Expressly prohibit any form of "Advanced Recycling," including chemical recycling, pyrolysis, solvolysis, gasification, waste-to-fuel (WTF), and "waste-to-energy" (WTE) incineration technologies;</li> <li>10. Ensure that municipal reimbursement is not onerous or controlled by producers or Producer Reduction and Recycling Organizations.</li> <li>11. Ensure that environmental justice communities and MWBE are given priority funding and support. Disclose publicly on the Dashboard which MWBE received priority treatment and funding.]</li> </ol>				<p><a href="#">Zero Waste Hierarchy of Highest and Best Use 8.0</a></p> <p><a href="#">Draft Scoping Plan - New York's Climate Leadership &amp; Community Protection Act</a></p>
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[Enact] <b>Support</b> EPR requirements specifically targeting	Legislative	5 years	DEC, product	<a href="#">Comptroller Brad Lander</a>
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<p>products with the greatest [climate, health, and environmental] GHG impacts, products that will drive the renewable economy to reach CLCPA emissions reduction goals, and/or products that pose significant end-of-life management challenges due to their size, composition, or toxicity, etc., and for which there are limited opportunities available for proper end-of-life management. Potential products beyond the packaging and paper product identified above to target for EPR legislation include, but are not limited to, mattresses, tires, solar panels, wind turbine blades, vaping devices, all batteries, refrigerant-containing appliances, compressed gas cylinders, and HHW.</p>		<p>Propose – 2023–<del>2027</del>  Begin [Enact]– 2025–<del>2032</del>  [Complete implementatio n – 2030]</p>	<p>manufacturers, environmental organizations, retailers, municipalities, consumers[, solid waste advisory boards]</p>	<p><a href="#">letter of support.pdf</a>  <a href="#">City of NY Memo of Support, June 2023.pdf</a></p>
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## Organics Reduction and Recycling

Organic waste represents about one-third of MSW, including food scraps, soiled paper, yard trimmings, and wood. [While it may be approximately 1/3 of waste generated, in NYC, it represents over approx 40% of waste NYC taxpayers pay to export.] For food purveyors, such as grocery stores or restaurants, organic waste can constitute more than two-thirds of their waste. In addition to the organic waste in MSW, other organic waste materials generated include [sewage sludge (“biosolids”)] **biosolids** from [waste]water [treatment plants] **resource recovery facilities** and food processing waste. [Organic materials such as food scraps, yard waste, and animal waste should be aerobically composted so that they can be returned to the land with minimal formation of methane.] **The reduction and recycling of these materials diverts them from landfilling, where they produce methane, and produces a rich soil product for improving soils.** [Reducing particularly the animal-origin portion of food-waste could further reduce greenhouse gas emissions as well as providing multiple other environmental and health benefits.] For excess edible food, donation provides a means to assist those in need. [As more and more states are implementing mandatory composting legislation and as food waste diversion from landfills is one way we can all help reduce greenhouse gas emissions, NY State should follow suit and lead by requiring mandatory organics diversion statewide by 2026.]

**Goal: Prioritize wasted food reduction, food donation, and food scraps recycling programs and initiatives in the commercial, industrial, and institutional sectors [and residential, with the goal of mandating statewide organics collection by 2026].**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
[Expand] <del>Support expansion to the</del> existing Food Donation and Food Scraps Recycling law to include [all] smaller food scraps generators[, including the institutions currently excluded (hospitals, nursing homes, adult care facilities, schools K-12)] and eliminate the mileage limit for organics recycling facilities [only for the purpose of composting those organics, only within New York State. Ban co-digestion of food scraps and yard waste with sewage, or landfilling or incinerating source separated organics.]	Legislative	2 years Propose – 2024  <b>Begin</b> [Enact] – 2026	DEC, food scraps generators, food donation organizations, organics recycling facilities, waste transporters, environmental groups[, solid waste advisory boards]	<a href="#">CLCPA Scoping Plan - Chapter 16</a>  <a href="#">Existing Food Donation and Food Scraps Recycling law</a>
Continue to develop food waste reduction education and outreach specific to the business [and residential] sector[s in support of the rollout of mandatory statewide legislation.]	DEC	Ongoing  [Complete by 2026]	NYSP2I, food scraps generators[, environmental groups,	<a href="#">EPA issues toolkit aimed at improving composting - Waste Today</a>



			solid waste advisory boards]	
[Study (sample, test) organic streams for pesticides, PFAS, Roundup, and other toxics that could contaminate food scraps and yard waste intended for composting and use on food crops. Evaluate impacts of levels found on public health. Make studies available on the public dashboard.]	[DEC]	[Complete by 2025]	[Solid waste advisory boards, environmental groups, universities]	
Provide additional financial assistance [, resources and materials] for food banks and emergency food relief organizations to address capacity, transportation, [cold-chain capacity] and other needs to capture more food for donation [by setting annual goals for increasing food donation. Monitor and partner with disaster relief organizations, to require that any and all donated food be utilized or reallocated, ensuring that all food waste is diverted from the waste stream. [Prepare analysis and report to the public on what has worked (and not worked) to date, compile and share best practices.]	DEC	5 years Begin – 2023	Food donation providers	It is essential to report on important program results to the public to enable rational planning going forward.
[Develop programs and tool kit materials to e]Encourage [and facilitate] partnerships between retailers and food donation organizations. [Prepare analysis and report to the public on what has worked (and not worked) to date, compile and share best practices.]	DEC	Ongoing [Complete tool kit by 2024; complete statewide outreach by 2025]	Feeding NYS, food retailers	It is essential to report on important program results to the public to enable rational planning going forward.
Provide financial assistance and education and outreach to [all] schools to combat food waste.	DEC [NYSED]	5 years Begin – 2026	School districts, DOH [, New York School Nutrition Association, Cafeteria Culture]	<a href="#">NRDC Model State Policy for Food Waste Prevention</a>
Support food waste reduction and education strategies for school meals [by training kitchen serving staff and pre-promoting menu offerings with classroom guidance,	DEC [NYSED]	[Ongoing, Complete strategies and	Feeding NYS, DOH, school districts	<a href="#">USDA's Offer vs. Serve Guidelines</a>

allowing student school meal component choice within the USDA's Offer vs. Serve Guidelines].		outreach by 2026]		
[Require grocery and drug stores to have emergency donation protocol in instances where electricity for refrigeration fails. Frozen and refrigerated food should then be donated instead of discarded.]	[Legislative]	[Propose – 2024 Complete implementation – 2026]	[DEC, food donation organizations, environmental groups, DHSES]	<a href="#">Disaster Preparedness Commission</a>
[Improve <a href="#">New York State Share Table guidance</a> , provide posters and a staff information resource and widely promote for school cafeterias by adapting to Washington D.C. promotion.]	[NYSED, DOH]	[Complete by 2024]	[ <a href="#">New York School Nutrition Association</a> ]	<a href="#">Washington D.C. promotion</a> <a href="#">USDA Guidelines</a>
[Reduce upstream waste by promoting a plant-based diet in public schools, and other state-run institutions, through education as well as Meatless Mondays, and multiple plant-based options available all days.]	[NYSED]	[2 years Propose – 2024 Complete by 2025]		See climate impacts of animal-based vs. plant-based foods compared to each other and the small relative roles of packaging and transportation here: <a href="#">Reducing food's environmental impacts through producers and consumers</a>  See chart based on this: <a href="#">Carbon footprint of food</a>
[Each quarter, invite food service operators to make plant-based meals the default in their institutional and corporate settings, so as to shift consumption patterns away from animal-sourced food while preserving freedom of choice. Partner with plant-based-default programs to provide default guidance to food service directors. Alert decision-makers to additional benefits of plant-based-default initiatives: food cost reduction, improved health and	[DEC]	[Begin 2023]	[Institutional and corporate food service operators, DOH, DOE, New York School Nutrition Association, Greener By Default]	

inclusivity.]				
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**Goal: Support the continued development of the organics recycling industry [prioritizing composting over co-digestion] in New York State.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Allow [and support] composting facility operation on municipal park lands[, in all cities with a population over 100,000 under the jurisdiction and oversight of the local parks administration].	Legislative	2 years Propose – 2024 <b>Begin</b> [Enact]– 2026	DEC, OPRHP, municipalities	
Establish a requirement for <del>a good faith effort from</del> all state agencies [and municipal parks] to [compost] <b>sustainably manage</b> organic material from their properties[, prioritizing locally processed composting over co-digestion, in order to meet goals set in new mandatory statewide law].	Legislative	5 years Propose – 2024 <b>Begin</b> [Complete]– 2026	DEC, OGS, all State agencies[, microhaulers, composters, botanic gardens, local farms, green markets, golf courses]	<a href="#">(SWABs) statement on PlaNYC proposed co-digestion</a>  Including a clause in the city's procurement rules and guidelines to prioritize the use and purchase of locally made compost over purchasing non-locally made compost will reinforce our goal of prioritizing composting over co-digestion. The point or best practice was brought up during the June 12 2023 <a href="#">presentation by Frank Franciosi of the US Composting Council</a> .

Promote [through policy writing and public outreach and education] additional recycling of <del>all</del> [clean, source separated] organics <b>including</b> [such as] food processing waste[, yard trim, urban tree trimming, and animal wastes] <b>and biosolids</b> . [Ban land application of sewage sludge or the sale of sewage sludge (a.k.a. “biosolids”) as soil amendment or fertilizer. Prepare analysis and report to the public on what has worked (and not worked) to date, compile and share best practices].	DEC	Ongoing [Outreach and policy writing complete by 2026. Ongoing outreach should continue quarterly]	Food processors, [solid waste advisory boards, environmental groups] <b>WRRFs</b>	
Provide additional financial assistance for organics recycling infrastructure [(excluding co-digestion)] and outreach, for <b>both</b> public [applicants] <b>and private facilities</b> .	DEC , [Legislative]	3 years Begin – 2025 [Complete infrastructure 2028]	ESD, municipalities, <b>private facilities</b> [solid waste advisory boards]	
Ban the co-digestion of food waste with sewage sludge (“biosolids”), due to contamination of sewage sludge with PFAS and hundreds of other pollutants.	[Legislative]	2024	Municipalities, environmental organizations, solid waste advisory boards	
[Provide additional financial assistance for educating residents about the importance of diverting food scraps from trash, how to do this, motivation, incentivizing participation and where to deposit their food scraps.]	[DEC]	[Begin 2024]	[Municipalities, resident recyclers, solid waste advisory boards]	
[Provide additional financial assistance to study ways to reduce the use of plastics for the multiple stages of compost production and storage.]	[Legislative, DEC]	[Begin 2023, Enact 2024]	[Municipalities, resident recyclers, environmentalists, solid waste advisory boards]	Plastic in compost pollutes our soil with toxic chemicals that include PFAS:( <a href="#">SWABs</a> ) <a href="#">statement on PlaNYC proposed co-digestion</a>

[Enact a disposal disincentive surcharge of \$15/ton, in addition to the tipping fee, to be paid to a dedicated fund to provide solely for education and infrastructure for waste prevention, reuse, recycling and composting in New York State on all waste landfilled or thermally treated in New York State and all waste generated in New York State being exported for disposal ]	[Legislative-budget]	[Enact 2025]	[Solid waste advisory boards, environmental groups, local jurisdictions]	Use Alameda County, <a href="#">StopWaste</a> as a model  Link: <a href="#">Alameda County, California – Waste Disposal Surcharges</a>
Provide training for yard trimmings compost operators to encourage the addition of food scraps into their operations.	DEC	3 years Begin – 2025	Industry associations	
Promote the recycling of food scraps at <del>water resource recovery facilities and</del> yard trimmings composting facilities by providing demonstrations, trainings, and other forms of technical assistance.	DEC	Ongoing	<del>WRRFs</del> , [local jurisdictions, environmental groups, solid waste advisory boards]	Zero waste experts advise against co-composting of food scraps with sewage sludge: <a href="#">Composting and Anaerobic Digestion Policy</a>
Provide guidance [and resources] on starting a composting operation for source separated organics [(Compost site operators, volunteer groups, community gardens)].	DEC	2 years Begin – 202[4]5	Municipalities, private facility operators[, nonprofits, compost operators, community gardens, volunteer community groups]	<a href="#">EPA issues toolkit aimed at improving composting</a>  <a href="#">Community Composters</a>
Provide guidance on starting a food scraps drop-off program that identifies regulations and factors to consider.	DEC	2 years Begin – 2025	Municipalities, private facility operators[, nonprofits, volunteer community groups], farmers markets	
Provide financial assistance for local, nonprofit, and small-scale organics collection and processing systems.	DEC	4 years Begin – 202[4]7	Municipalities, nonprofit groups	

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Partner with the United States Composting Council (USCC) and Compost Research and Education Foundation (CREF) to bring USCC and CREF events and trainings to the State such as the annual Compost Conference, [NYSAR3 organics conference] the Compost Operations Training Course.	DEC	<del>3-years</del> Begin – 2023 [and annually thereafter]	USCC, CREF[ , NYSAR3]	
[Compile and] P[p]ublish information on successful models for organics collection programs inclusive of multi-family buildings and public housing. [Create a library of materials and resources produced by municipalities and organizations.]	DEC	<del>3-years</del> Begin—2023 [Compile and publish information by 2026]	Organizations involved with multi-family building recycling operations, [solid waste advisory boards, environmental groups]	
[Require municipalities to publish interactive maps of organics collection sites that include information about where they are, what organic materials are accepted, and how the organics collected from the site are processed.]	[Legislative]	[Enact 2024]	[Municipalities, community garden proprietors, resident recyclers, solid waste advisory boards]	
[Require any new organics processing facility be built for composting.]	[Legislative]	[Enact 2023]	[Municipalities, resident recyclers, solid waste advisory boards]	<a href="#">(SWABs) statement on PlaNYC proposed co-digestion</a>

**Goal: Empower [and educate] residents of New York State to properly manage excess food, reduce wasted food, and recycle their food scraps.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Develop household food waste prevention materials [by 2025 and provide ongoing ] <del>and</del> educate [to] residents on how to save money while reducing wasted food[, reduce their carbon footprint and climate impact].	DEC	<del>4-years</del> Begin—2023 [Develop materials by	Environmental groups, solid waste advisory boards	

		2025 and ongoing]		
Partner with Cornell Cooperative Extension and community-led organizations to facilitate master composter classes and composting workshops for residents[, including NYC residents who currently receive incomplete info from DSNY].	DEC	<del>4-years</del> Begin – 2024 [and ongoing]	Cornell Cooperative Extension, [botanical gardens, NYU, CUNY, SUNY, Columbia]	
Provide financial assistance to expand food scraps drop-off programs and local-scale processing opportunities (e.g., farmers’ markets, community gardens, [public] transfer [station]-facilities, [community scale composting sites,] etc.) [with requirement that all organic diversion channels clearly state what is accepted and the end use of their collected organic material].	DEC [Legislative - budget]	<del>4-years</del> Begin – 202[4]6 [and ongoing]	Microhaulers, community gardens, botanical gardens, farmers markets	
Continue to provide financial assistance to municipalities to expand residential food scraps collection services.	DEC [Legislative- budget]	Ongoing [Starting 2026]	Municipalities	
Assess the accessibility of composting opportunities and resources available for residents, especially in PEJAs and DACs and promote [and require] the [equitable] development of community accessible composting opportunities (community composting, food scraps drop-off programs, residential collection, etc.) [in environmental justice communities. Prepare analysis and report to the public on what has worked (and not worked) to date, compile and share best practices].	DEC	Ongoing [Starting in 2024]	<del>Affected</del> [PEJA and DACs,] communities, [and organizations, Climate Justice Working Group, NAACP and solid waste advisory boards]	

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**Goal: Improve and expand markets for products made from organics materials such as compost and digestate.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Partner with New York State Department of Agriculture and Markets and industry associations to explore ways to increase the use of [locally-produced] compost in agriculture, [landscaping, and lawn care, Increase the use of locally produced compost at all state and city agencies and reduce reliance on harmful chemical fertilizer products].	DEC	4 [2] years Begin – 2023 [Complete outreach statewide to industry groups 2026]	DAM[, [farm associations (find a list to insert) [New York Wine and Grape Foundation, Finger Lakes Wine Alliance, Long Island Latino Vintners Association, Long Island Farm Bureau, New York State soil and water conservation districts, NY Wine Grape Growers, NY Wine Industry Association]	Finding end markets is critical and the local jurisdictions that don't have room for composting have not been doing their homework to find land and markets. Beneficial application for compost is likely to increase participation in organics collection if used judiciously vs. putting food scraps in sewage sludge
[Incentivize (e.g. farm subsidies, to increase the use of locally produced compost at all state and city agencies and reduce their reliance on chemical fertilizer products. ]	[NYS Dept of Ag and Markets, DEC]	4 [2] years Begin – 2024 [Complete outreach statewide to industry groups 2026]	[Local jurisdictions, 4H clubs, FFA, Natural Resources Conservation Service / USDA]	Ag subsidies come from USDA/Farm Bill, not DEC or Ag and Markets. NRDC runs the conservation programs. Soil and Water Conservation Districts are parallel agencies, controlled by appointees to county SWCD boards.
Partner with DOT and industry associations to explore ways to increase the use of compost in large transportation and public works projects[, government lands including parks, schools, universities, farms and flood mitigation. Require all municipal parks to compost their organics]	DEC	5 years Begin – 2024 [Complete work by 2027]	[DOT, construction contractors, SUNY, other universities, association of towns, NY conference of mayors, National League of cities (NY)]	<a href="#">Reducing the Impact of Wasted Food by Feeding the Soil and Composting</a>   <a href="#">US EPA</a>



<p>[Facilitate and] P[romote] the sharing of information between municipalities concerning successful organics management models and programs [and publish this information on the public dashboard].</p>	DEC	<p>[Publish dashboard by 2025 and Promote] Ongoing</p>	Municipalities	Public dissemination of and easy access to this information can increase organics program participation by increasing motivation
<p><del>Partner with compost facility operators and other interested parties to develop guidance on biodegradable products.</del></p> <p>[Ban compostable plastics except for bags that can be used for residential collection of food scraps. For these bags, pass legislation that mandates the use of non-GMO packaging that meets ASTM D6400 or EN 13432 standards and that facilitates the collection of food scraps for composting and not the disposal of packaging.]</p>	DEC [Legislative]	5 [3] years Begin – 2024	Biodegradable packaging producers, biodegradable certification entities	<a href="#">See Appendix B for Justification</a>
<p>Explore methods to use additional products locally, such as local compost networks with food growers, municipal tree programs, stormwater resiliency projects, [farms, soil bioremediation including in strip mines and Superfund sites] individuals, etc. [, compiling a database/dashboard of all entities using, interested or in need of compost.]</p>	DEC	5 [2]years Begin – 2025	[Food growers, municipal tree programs stormwater resiliency projects, farmers]	
<p>Fund [and manage] additional research to expand markets for compost, digestate, etc. [and monitor developments and best practices elsewhere].</p>	DEC [Legislative-budget]	5-years Begin – 202[3] [and ongoing] 5 [Publish first report on markets research 2025]	Academic institutions involved in product use [Cornell Cooperative Extension, SUNY, NYU, environmental groups]	
<p>[Partner with State and Local Parks departments to apply compost.</p>	[DEC]	[Begin 2024]	[DEC, state and local municipal parks organizations]	

<p>1. Establish a PFAS testing program for large-scale (what should be the threshold size?) municipal and private compost operations, to be overseen by Cornell Waste Management Institute with state funding. Conduct annual testing for multiple PFAS compounds (or total organic fluorine). If concentrations exceed 5 ppb total PFAS, CWMI would assist the compost operator in determining likely source of PFAS so it can be avoided in future. An annual report would be published and posted online.</p>				
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<b>Goal: Engage the farming and agriculture community in food donation, recycling organic waste, and using waste-derived organics products.</b>				
<b>Action Items</b>	<b>Implementa tion Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
<p>Explore [and compile] methods (outreach, research, etc.) to [report to the public on and] emphasize the role waste-derived organics products, such as compost or digestate, can play in improving soil health and resiliency[, in order to reduce reliance on chemical pesticides and fertilizer].</p>	<p>DEC</p>	<p>3 years Begin – 2023</p>	<p>DAM, Cornell University, New York Farm Bureau</p>	<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>[Establish a working group that meets regularly to] E[engage farm groups and others to find ways to [adopt regenerative farming practices] increase the use of organics on farms[, creating a dashboard and compiling an annual report to the public of its findings with a focus on calculating the demand for compost.]</p>	<p>DEC</p>	<p>Ongoing [Begin 2024, first annual report by 2025]</p>	<p>DAM, [USDA NRCS,] Cornell, New York Farm Bureau</p>	<p>It is essential to report on important program results to the public to enable rational planning going forward. Long term soil regenerative processes reduce greenhouse gasses. Chapter 15 of CLCPA scoping plan.</p>

<p>[Work with DEC and DAM (Dept of Ag and Markets) to increase the number of educational and implementation programs and the number of] <del>Promote the development of</del> composting facilities on farms that accept off-site organics and the development of anaerobic digestion capacity[, produced onsite for farm use] on farms.</p>	<p>DEC[, Dept of Agriculture]</p>	<p><del>Ongoing</del> [Education by 2024, Implementation by 2027]</p>	<p>DAM, Cornell, New York Farm Bureau, Cooperative Extension, Soil and Water Conservation Districts[, environmental groups]</p>	<p>Local use of compost generated reduces carbon emissions from transportation and provides needed nutrients directly to agricultural soil</p>
<p>Explore [and publish annual reports to the public on] the increased use of food scraps for animal feed [evaluating health risks of food scrap supply sources, finding farms willing to use it].</p>	<p>DEC</p>	<p>3 years Begin – 2023 [First report finished 2025]</p>	<p>DAM, Cornell, New York Farm Bureau</p>	<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p><del>Enhance current</del> [Maximize] efforts to donate excess edible food from farms [and reduce food wasted/unharvested on farms].</p>	<p>DEC</p>	<p>3 years Begin – 2023</p>	<p>DAM, Cornell, New York Farm Bureau, Feeding NYS</p>	

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## Toxics Reduction **[and Elimination]** in Products

As new products, packaging, and services emerge, ~~there are inevitably toxic materials and contaminants that must be addressed rapidly in order to prevent or mitigate damage or harm to people and the environment.~~ Toxic materials are intentionally added to new products as ingredients that give the product a desired property. In addition, toxic **[contaminants in products may result]**-from chemical reactions, **[their use as manufacturing aids]**, residue on manufacturing equipment, or from recycled content feedstocks. **[It is important to prevent the introduction of known toxics into the production of new and existing products. The precautionary principle should be followed in the reduction and elimination of toxics in products.]** The following goals focus on addressing toxic materials and contaminants in products. Steps taken to achieve the goals listed under this Goal will drive the market toward products that are safer and more appropriate for reuse, remanufacturing, and recycling.

Goal: Leverage partnerships to expand knowledge <b>[and public education]</b> of harmful chemicals in products to promote their reduction and to enhance materials reuse and recycling				
Action Items	Implementa tion Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p><b>[Ban the following toxic substances used in the manufacture of products and packaging sold in NYS. The following substances and classes of substances have been identified as toxic: ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances (PFAS), lead and lead compounds, hexavalent chromium and compounds, cadmium and cadmium compounds, mercury and mercury compounds, benzophenone and its derivatives, halogenated flame retardants, perchlorate, formaldehyde; and toluene. This list is not complete and additional substances will need to be added over time. This list shall be assessed on an annual basis and additional substances added as they are identified.</b></p> <p>Any proposed efforts should include a review of previous and current efforts.]</p>	[Legislative]	<p>[Begin introducing legislation – 2024</p> <p>Address all the substances in legislation by 2029]</p>	[DEC, Environmental Groups, NGOs, NYCSP21, environmental groups, NYSP21]	These toxic substances are becoming widespread in products and packaging. We should be aiming to eliminate exposure to toxics in products in packaging because of impacts on hormone disruption, cancer, and other health effects.
[Ban the use of sewage sludge in any form as a soil amendment on land (parks, lawns, playing fields, gardens,	[Legislative]	[Enact 2024]	[Solid waste advisory boards, environmental	Sewage sludge (“biosolids”) is <u>contaminated with</u>

<p>farmland, etc)]</p>			<p>organizations, health organizations]</p>	<p><a href="#">hundreds of unregulated pollutants according to the EPA inspector general</a>, including pharmaceuticals, steroids, and flame retardants.  <a href="#">Toxic PFAS in Home Fertilizers Made From Sewage Sludge</a></p> <p><a href="#">SEWAGE SLUDGE 'FERTILIZER' CONTAMINATES FARMS WITH TOXIC PFAS</a></p> <p>Toxic, carcinogenic PFAS “forever chemicals” and microplastics and associated toxic chemicals are also pervasive. Biological hazards include viruses such as COVID-19. Sewage sludge also contains radioactive and chemotherapy toxics from healthcare facilities and isotopes excreted from humans and pets injected with radioactive treatments. The various pollutants in sewage sludge endanger farm families, farmworkers, rural neighbors, consumers, soil and water resources, and ecosystems.</p>
<p><b>Partner</b>[Aggressively reduce toxics in production and products in NYS in partnership] with NYSP2I[. This partnership will require adequate annual funding.] <b>to identify</b></p>	<p>DEC [Legislative-budget,</p>	<p>5 years Begin – 2023</p>	<p><b>NYSP2I</b> [Environmental groups]</p>	

<del>ways toxics can be reduced in manufactured materials, broadening options the end of their useful life especially in agricultural or construction uses.</del>	NYSP2I]			
Identify and work with [and provide monetary incentives to] industry sectors to find innovative approaches to reduce hazardous chemicals use and waste generation. [An annual report shall be released to the public.]	DEC[, Legislative-b udget]	5 years Begin – 2023[. First report due 2025]	NYSP2I, manufacturers[, environmental groups]	Manufacturers often need monetary incentives or disincentives to make changes and do research
Partner with the colleges and universities in New York to better understand the presence of toxic materials, such as PFAS, in products [and their use in production,] and to enhance DEC’s implementation of programs that restrict their use or require their disclosure.	DEC	5 [3]years  Begin – 2023	Colleges and universities, NYSP2I, DOH	The following substances and classes of substances have been identified as toxic: ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances (PFAS), lead and lead compounds, hexavalent chromium and compounds, cadmium and cadmium compounds, mercury and mercury compounds, benzophenone and its derivatives, halogenated flame retardants, perchlorate, formaldehyde; and toluene.
Partner with colleges and universities in New York to identify preferable alternatives to the use of toxic chemicals, such as PFAS, in products.	DEC	5 years Begin – 2023	Colleges and universities, NYSP2I, DOH	The following substances and classes of substances have been identified as toxic: ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances (PFAS), lead and lead compounds, hexavalent chromium and compounds, cadmium and cadmium

				compounds, mercury and mercury compounds, benzophenone and its derivatives, halogenated flame retardants, perchlorate, formaldehyde; and toluene.
Implement statutory restrictions on PFAS [and other toxic substances] in apparel, provide guidance to affected entities [and enforce] to ensure industry compliance, and educate the public on the necessity for this [A]ction.	DEC	5 years Begin – 2023	Textile and apparel manufacturers, distributors, retailers, consumers, environmental organizations	

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[Require all dry cleaners using perchlorethylene to switch to nontoxic alternatives]	[Legislative]	[Introduce bill in 2024; Implement statewide by 2028]	[Industry, retail, consumers, environmental groups]	
[Ban mercury in consumer products, and packaging, and food preparation, with exceptions for medical use only where no mercury-free alternatives exist.]	[Legislative]	[Introduce in 2024, Implement within 2 years]	[DEC]	
Provide [ongoing] outreach on and [achieve and] enforce [DEC] <del>the</del> requirements of Subpart 368-2 that establishes standards for the labeling of mercury-added consumer products.	DEC	<del>Ongoing</del> [Start immediately, achieve standards statewide by 2027]	Manufacturers of mercury-containing products, distributors, consumers, environmental groups	

**Goal: Support legislation, policy, and initiatives that reduce the presence of toxic materials and contaminants, [and GHG generation] in [the manufacture, use, and end of life disposition of] products.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
[Prohibit sale of cigarettes with single use filters and single use e-cigarettes / vaping products.]	[Legislation]	[Begins 2024]	[Solid waste advisory boards, environmental and health organizations]	[This is a requirement under S3063, the Tobacco Product Waste Reduction Act. Filters are a major source of litter, and a type of plastic with accompanying toxic chemicals.]
[Enact legislation to require testing for and annual reporting to the public on microplastics in tap and environmental waters]	[Legislative]	[Enact 2024]	[Solid waste advisory boards, environmental and health organizations]	It is essential to report on important program results to the public to enable rational planning going forward.
[Establish a task force to research the human health impacts of microplastics in drinking water and establish a limit if there is a safe limit for the amount of microplastics allowed in tap water and establish filtration systems to be in compliance.]	[Legislative, Executive]	[Begin 2023 Report on activities and findings due 2025]	[Solid waste advisory boards, environmental and health organizations, Universities and colleges]	
[Enact legislation requiring that all new washing machines offered for sale in New York on or after January 1, 2029 include a built-in microfiber filtration system with a mesh size of not greater than 100 micrometers.  Ban sale of new washing machines that inject silver nanoparticles into the laundry and resulting wastewater]	[Legislation]	[Enact 2024]	[Solid waste advisory boards, environmental and health organizations, manufacturers]	<a href="#">Silver Nano - Wikipedia</a>



<p>[Enact legislation that prohibits restaurants, third-party food delivery services, and courier services from providing eating utensils, napkins, condiment packets, and extra food and beverage containers to customers with their take-out and delivery orders, unless specifically requested.]</p>	<p>[Legislation]</p>	<p>[Enact 2024]</p>	<p>[Solid waste advisory boards, environmental and health organizations, restaurants]</p>	<p><a href="#">Council Votes on “Skip the Stuff” Bill to Reduce Plastic Waste in Food Orders,</a></p> <p><a href="#">DSNY Skip the Stuff Resources,</a></p> <p><a href="#">“Skip the Stuff” Laws Aim to Get Rid of Takeout Trash - FoodPrint</a></p>
<p>Support initiatives that ban [ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances (PFAS), lead and lead compounds, hexavalent chromium and compounds, cadmium and cadmium compounds, mercury and mercury compounds, benzophenone and its derivatives, halogenated flame retardants, perchlorate, formaldehyde; and toluene,] <b>materials and</b> chemicals that are a growing concern for people and the environment.</p>	<p>Legislative</p>	<p>5 years Propose – 2023 Begin – 2024 6 [Finish 2029]</p>	<p>DEC, DOH, environmental organizations, manufacturers, consumers</p>	
<p>Support implementation of chemical restrictions in a way that acknowledges scientific consensus and existing standards and better enables a circular economy.</p>	<p>Legislative</p>	<p>5 years Propose – 2023 Begin – 2025</p>	<p>DEC, DOH, environmental organizations, manufacturers, consumers</p>	
<p>Develop and advance regulations that require greater disclosure of [all toxic] ingredients in products [and packaging].</p>	<p>DEC</p>	<p>3 years Begin – 2023</p>	<p>Product manufacture[r]s, environmental organizations, DOH, manufacturers, consumers</p>	
<p>Support efforts to restrict the presence of toxic materials and contaminants in the products New York State purchases in the context of NYS Exec Order 22. <b>An annual report will be made public on the dashboard]</b></p>	<p>OGS</p>	<p>[Begin rewriting specs 2024,</p>	<p>DEC, DOH, OGS, environmental organizations,</p>	<p><a href="#">NYS Executive Order 22 “Leading By Example”</a></p>

		finish by 2025] Ongoing	manufacturers, consumers	
<del>Increase support for research and</del> [A]ssessment of plastic pollution and microplastics/microfibers [pollution due to these substances in consumer products and packaging].	DEC	5 years Begin – 2024 [Complete study by 2026]	Plastics industry, environmental organizations[, universities and colleges]	
Develop regulations to guide the disclosure of chemicals present in children’s products and advance an online system to make this information available to the public. [An annual report will be made public on the dashboard].	DEC	[Promulgate 2025] Ongoing	Manufacturers, environmental organizations, DOH, consumers	
Convene the Children’s Product Safety Council and consider their recommendations on chemicals that should be restricted from children’s products.	DEC	5 [2] years Begin – 2023	Product Safety Council, DOH[, environmental groups]	

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Develop regulations to guide the disclosure of ingredients in cleaning products and advance an online system to make this information available to the public.	DEC	[Promulgate by 2025] Ongoing	Manufacturers, DOH, environmental organizations, consumers	
Participate in the Interstate Toxics in Packaging Clearinghouse to assure compliance with the restrictions on lead, cadmium, mercury, and hexavalent chromium in packaging.	DEC	Ongoing	Toxics in Packaging Clearinghouse and member states	

Provide outreach and education material to make affected entities aware of the restrictions on PFAS in food packaging.	DEC	[Complete 2023] Ongoing	OGS	
[Develop and implement a testing program for PFAS in food packaging. Publish the data in DEC online public dashboard]	[DEC]	[Complete by 2025]	[Food packaging producers, food distribution centers, retailers, food industry]	
Develop regulations to guide the restriction of 1,4-Dioxane in cleaning, personal care, and cosmetic products.	DEC	[Complete by 2025] Ongoing	DOH, manufacturers, environmental organizations, consumers	
Develop regulations to guide the restriction of applicable flame- retardant chemicals in upholstered furniture, mattresses, [clothing] and electronic displays.	DEC	[Complete by 2025] Ongoing	DOH, manufacturers, environmental organizations, consumers	
[Assemble a list of 50 or more of the most dangerous and widespread chemicals and chemical classes. Address and revise as new hazardous chemicals are developed.]	[DEC]	[Initiate by 2024; Complete initial list by 2025; Ongoing]	[DOH, manufacturers, environmental organizations, consumers]	

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## Design and Operation of Solid Waste Management Facilities and Related Activities

Solid waste management facilities are critical to the proper management of waste generated in the State. A variety of facilities are needed to receive wastes, from organics recycling facilities and recyclables handling and recovery facilities [and reuse evaluation, repair and salvage facilities] to landfills and combustion facilities. Others are needed to provide intermediate services such as collection and transfer. All these facilities must be operated in a way that is protective of human health and the environment. To ensure that these facilities operate in an environmentally sound manner, appropriate regulatory controls are required.

Goal: Maintain regulations governing the design and operation of solid waste management facilities to ensure that those facilities are protective of [public health, air quality, the climate, and] groundwater and other environmental resources.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>Amend solid waste facility regulations based on new legislation, continuing evaluation of technical standards and criteria, and feedback from the regulated [environmental] community, [and communities impacted by transfer stations, landfills, incinerators, rail yards and trucks that handle waste-by-rail].</p> <p>Update regulations to implement new laws related to paint recovery, food scrap recovery[, containment of waste spillage, blowoff, leachate, toxics, and odors in railcars and containers to implement S2022/A4928;] and improved materials management procedures at mulch and C&amp;D debris facilities <del>on Long Island</del> [statewide]. Amendments will also allow for greater reuse of concrete, asphalt, rock, and brick, while increasing regulatory control on contaminated soil, enhancing design requirements for solid waste landfills, and easing regulatory requirements some municipal facilities in order to encourage greater collection of recyclables. [For putrescible and non putrescible MSW, commercial, and industrial solid waste, promulgate new regulations for transfer station buildings so all buildings contain all waste</p>	DEC	<p style="color: red;">Ongoing</p> <p>[Begin 2023, complete 2024.]</p>	Regulated community, public, environmental groups, professional organizations [affected communities],	<p><b>C&amp;D Recycling:</b> DEC needs to promulgate regulations to do that once the <a href="#">Governor signs this legislation</a></p> <p><a href="#">Queens lawmakers call on governor to sign bill.</a></p> <p><a href="#">This collision report shows what NYS exports.</a></p> <p>See what's achievable for C&amp;D recycling in <a href="#">NEWMOA's white paper.</a></p> <p>See recording of panel addressing: <a href="#">Gypsum Wallboard: Problems, Recommendations, &amp; the Current State of Recycling</a></p>

<p>spillage, blowoff, leachate, toxics, and odors within the building.</p> <p>Revise regulations for Beneficial Use Designations to ensure that toxics banned in packaging are included in 6 CRR-NY 375-6.8 NY-CRR.]</p>				<p>See DEC’s responses for not mandating gypsum wallboard construction debris recycling - <a href="#">page 5, comment 5, under “Facility Operations”</a>. There must be regional facilities for gypsum wallboard construction debris recycling.</p> <p><b>Waste-by-rail:</b> has been growing 30% a year. <a href="#">See documentation in this folder</a></p> <p>NYS should pass regulations <a href="#">similar to California’s</a>.</p>
<p>Incorporate climate impact criteria and related design and operating requirements into solid waste facility regulations to facilitate achievement of GHG reduction goals. [GHG accounting must count all of the GHG emissions from combustion facilities.]</p>	<p>DEC [Legislative]</p>	<p>3 years Begin – 2023  [Enact 2024 Implement by 2030]</p>	<p>Regulated community, public, environmental groups, professional organizations[, California Air Resources Board, EPA Air &amp; Radiation Division Region 2]</p>	<p>Discounting about half of the emissions from trash incinerators due to outdated theories of biogenic carbon neutrality is inappropriate. First, it is double-counting with climate models that already account for growing trees and plants. Second, there is nothing about the choice of incineration vs. landfilling that causes additional regrowth of trees and plants, so offering a discount to the emissions of one industry over the other is improper accounting. Third, carbon in the atmosphere warms the</p>

				<p>climate regardless of where it came from, but carbon in a tree, or in wood decaying slowly in a landfill is not in the air and does not heat the climate. Finally, the carbon neutrality myth is based on the notion that eventually trees will regrow and suck up the extra pulse of carbon released when burning. We don't have the time for this decades-long regrowth to be pretending that current "biogenic" emissions are zero when we need to avoid climate tipping points in the short-term. <a href="#">Find links to the science debunking biomass carbon neutrality</a></p>
<p>[Support the use of solid waste transport that minimizes emissions and adverse impacts on public health (e.g. barge), including following California's lead by banning the use of old locomotives in NYS.]</p>	<p>DEC [Legislative]</p>	<p>3 years Begin – 2023  [Enact 2024 Implement by 2030]</p>	<p>Regulated community, public, environmental groups, professional organizations[, California Air Resources Board, EPA Air &amp; Radiation Division Region 2]</p>	<p>Workers and residents by freight rail operations, including railyards, breathe locally-generated freight rail pollution, not "average" air pollution levels – data gathered by DEC and EPA on rooftops, or railroad fleet averages. If the LIRR work trains and New York &amp; Atlantic Railway locomotives were repowered to Tier 4 Switch Duty Cycle locomotives that would eliminate the NOx equivalent of more than a</p>

				<p>million cars in New York's air. <a href="#">See documentation in this folder</a></p> <p>NYS should pass regulations similar to California's (<a href="#">linked here</a>)</p>
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Goal: <b>[Mandate]</b> <b>Encourage</b> increased reuse of C&D debris, including excavated material.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Develop[, <a href="#">share with jurisdictions, and roll out</a> ] new outreach and education efforts focused on excavated material and new regulatory changes related to reuse of <a href="#">[deconstructed and]</a> excavated material in order to maximize reuse of the material and reduce both legal disposal and illegal dumping.	DEC	4 years <a href="#">[Develop new educational materials by 2024;]</a> Begin <a href="#">[outreach]</a> – 202[5] <sup>3</sup>	<a href="#">[NEWMOA,]</a> Regulated community, construction industry <a href="#">[deconstruction industry]</a>	<p>See DEC's responses for not mandating gypsum wallboard construction debris recycling - <a href="#">page 5, comment 5, under "Facility Operations"</a>.</p> <p>Gypsum, a mined mineral, is reusable/recyclable, but causes the formation of toxic gas when it decomposes in landfills. Other jurisdictions worldwide already mandate its reuse/recycling.</p> <p>See what's achievable for C&amp;D recycling in <a href="#">NEWMOA's white paper</a></p>

				<a href="#">See other documentation in this folder</a>
Establish methods for collecting data on C&D debris generation and management, including identification of regional characteristics and opportunities for increased diversion from disposal [(i.e. <a href="#">deconstruction and recycling</a> )].	DEC	5 years Begin – 2023 [Establish methods by 2025]	[ <a href="#">NEWMOA, NYMTC-CAIT study</a> ,] Regulated community, construction industry	See what’s achievable for C&D recycling in <a href="#">NEWMOA's white paper</a>

**Goal: Enforce solid waste regulations to enhance compliance.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Increase electronic reporting to facilitate timely data reporting, data evaluation, compliance determinations, and enforcement [with development of a public online dashboard that includes these data, annual and other research reports, and the capability to map solid waste facilities and waste movements, including in Potential EJ and Disadvantaged Communities, including annual updates to Disadvantaged Communities Indicators and Maps. Clarify that data on the flow of waste is not subject to claims of confidentiality.]	DEC	3 years Begin – 2023 [Set up and populate dashboard by 2025]	Regulated community [Representatives of EJ Nonprofits, such as those that served on the Climate Justice Working Group (CJWG), Energy Justice Network, Representatives of Potential EJ and Disadvantaged Communities where solid waste facilities are located, Illume]	Transparent and timely reporting on important program results to the public are essential to rational planning going forward and accountability for compliance. Environmental Justice communities are overburdened with polluting facilities, including transfer stations, landfills, traffic from waste-by-truck and rail, and the health, environmental, and quality of life impacts that result.  <a href="#">Pennsylvania has a good model for disclosure of waste flow data.</a>



				Energy Justice Network has unique EJ mapping tools that would be useful, including the ability to instantly analyze sector-wide EJ impacts across aggregate distances from 0.1 to 250 miles.
Increase the use of drones[, video surveillance,] and other new technologies to assess[, report to DEC, and enforce] facility performance [and compliance with permit conditions and NYS Environmental Laws and Regulations. Include all reports and enforcement actions on the public dashboard and create and make public an annual report on enforcement. Seek to enable the public to easily report violations to DEC].	DEC	3 years Begin – 2023 [First annual report 2025]	Regulated community[, Representatives of EJ Nonprofits, such as those that served on the CJWG, Representatives of Potential EJ and Disadvantaged Communities where solid waste facilities are located, environmental groups, solid waste advisory boards]	
Develop policy [and a plan] to implement the requirement in Part 360 that mandates that solid waste management facilities (SWMFs) effectively control nuisance odor. [Direct all facilities to measure and report nuisance odor to DEC and put this information into the public dashboard. Make it easy for residents to report violations.]	DEC	1 year Begin – 2023 [Develop and begin plan implementation by 2025]	Regulated community, public, environmental groups[, solid waste advisory boards, Representatives of EJ Nonprofits, such as those that served on the CJWG, Representatives of Potential EJ and Disadvantaged Communities where solid waste facilities are located.]	

Implement new policy for streamlining review of most typical case-specific beneficial use determination petitions. This policy will provide petitioners with application criteria and will speed review by establishing standard review criteria that will be implemented by regional program staff.	DEC	1 year Begin – 2023 [Ongoing annually]	Regulated community [Representatives of communities where material is being deposited, environmental groups]	
[Conduct unannounced, random audits of regulated communities and their testing laboratories to verify submissions, funded by the regulated community.]	DEC	[Begin – 2023; Ongoing annually]	[Independent laboratories employed by DEC and EPA.]	
[Review and update list of toxics in 6 CRR-NY 375-6.8 NY-CRR and DEC-qualified Beneficial Uses annually so contamination is not spread throughout the environment with adverse human health impacts as a result of a BUD. Rescind BUDs where science indicates adverse impacts.]	DEC	[Begin – 2023; Ongoing annually]	[SUNY and CUNY scientists, NRDC, EDF, NYPIRG, environmental groups]	

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<b>Goal: Provide technical assistance to solid waste management facilities to improve operations.</b>				
<b>Action Items</b>	<b>Implementation Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
Develop guidance to help facilities remain in compliance with the regulatory criteria and to improve operations. [Revise guidance when there is new legislation. Include all guidance and updates in public dashboard]	DEC	4 [2] years [for initial guidance] Begin – 2023 [Ongoing]	Regulated community [environmental groups, solid waste advisory boards]	
Contact facilities and others to determine what types and means of assistance are needed [and develop new guidance in response to new legislation and demand from facilities].	DEC	5-years Begin – 2023 [Ongoing]	Regulated community [environmental groups, solid waste advisory boards]	

Facilitate cooperative discussions[, e.g. a conference, at a minimum annually] between facilities to solve common problems.	DEC	<del>5 years</del> Begin – 2023 [and annually]	Regulated community [environmental groups, solid waste advisory boards, reuse community, EJ community reps]	
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**Goal: Minimize GHG emissions from solid waste management facilities.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Incorporate improved methane monitoring technologies into facility operations and existing monitoring programs for landfills, anaerobic digesters, [co-digestion facilities] etc. Identify mitigation measures that landfill, [sewage treatment plants, and other] operators must implement in order to eliminate fugitive emissions. [Annual reports on emission must be on the public dashboard.]	DEC	<del>5 years</del> Begin –2023 [Ongoing;  First annual report – 2025]	Regulated community [environmental groups, EJ community reps,]	We agree with monitoring for methane at co-digestion facilities, but we <b>ultimately want to limit organics in co-digestion facilities as much as possible.</b>
[Require and incorporate continuous emission monitors for at least CO2, CO, NOx, PM2.5, and SOx at thermal treatment facilities, landfills, and anaerobic digesters, and co-digesters. Enforce that CEM devices are working accurately and transmitting data instantly to DEC for the public dashboard where data shall be shared with the public in real-time. If truly continuous monitoring technology is not commercially available, semi-continuous monitoring should be used, and if that is not available, continuous sampling methods should be used, with back-to-back samples (of no more than 31 days sample time) collected and analyzed in order to cover at least 99.9% of the facility’s operating time in the course of a calendar year.  For thermal treatment facilities (including municipal waste combustors, sewage sludge incinerators, pyrolysis and	[DEC, Legislative]	[Enact 2025, Implement 2026]	[Regulated community, environmental groups, solid waste advisory boards]	In Japan, as early as the 1980s, electronic billboards would display continuous emission monitor data outside waste-to-energy plants for the community to read.  In Oregon, we just got a law passed to require continuous monitoring/sampling for dioxins/furans, PCBs and toxic metals at the state’s only trash incinerator. See <a href="http://www.energyjustice.net/or/sb">www.energyjustice.net/or/sb</a>

<p>gasification units processing wastes or recyclables, cement and aggregate kilns burning wastes, and any other facility that accepts waste and burns it or burns gasses produced on-site from such wastes, not including landfills burning landfill gas), the following chemicals shall be required to be continuously monitored: CO, CO2, NOx, SO2, PM (total), PM10, PM2.5, HCl, HF, H2SO4, dioxins/furans, PFAS/PFOA, As, Cd, Cr(VI), Cr(Total), Hg, Mn, Ni, Pb, Se, and Zn.</p> <p>For landfills (not including landfill gas burners), the following chemicals shall be required to be continuously monitored with an ambient air monitoring protocol approved by DEC to adequately capture fugitive emissions: CO2, CH4, H2S, methylmercury, benzene, toluene, vinyl chloride, trichloroethene, trichlorofluoromethane, and tritium.</p> <p>For landfill gas burners of any sort, the following chemicals shall be required to be continuously monitored: NOx, SOx, CO, CO2, CH4, non-methane organic compounds, tritium, mercury, and dioxins/furans. All landfill gas burners must be shrouded (no open flares) and emissions must cool to below 200°F before emissions testing to ensure that dioxins/furans are properly monitored.</p> <p>For anaerobic digestion and co-digestion facilities, the following chemicals shall be required to be continuously monitored: NOx, SOx, H2S, CO, CO2, and CH4.]</p>				<p><a href="#">488</a> This builds on several local laws requiring CEMS that we've written and had passed in county and municipal governments in NY, PA, and MD.</p> <p>We agree with monitoring for methane at co-digestion facilities, but we <b>ultimately want to limit organics in co-digestion facilities as much as possible.</b></p>
<p>Implement design and operational practices for further emissions reduction. [Analyze and assess emissions and public health impacts from facilities, annually. Update results on public dashboard.]</p>	<p>DEC [DOH]</p>	<p>5 years Begin – 2023 [and annually]</p>	<p>[Environmental groups, regulated community]</p>	<p><a href="#">Burning Garbage in the Us: Practice Vs. State of the Art</a> - Marjorie J. Clarke, first author</p> <p><a href="#">Front Matter   Waste Incineration and Public Health</a></p>

				A summary and citations to some of the newer research showing health impacts from incineration are <a href="#">in this factsheet here</a>
[Do not manipulate landfills to maximize gas formation or to crank up the methane concentration in landfill gas for the purposes of landfill gas-to-energy projects. Keep liquids out of the landfill by banning leachate recirculation and “bioreactors,” and by using temporary structures to keep precipitation out of the active face of the landfill. Cap landfills with permanent synthetic covers and install gas collection systems in months, not years. To maximize gas collection, segregate organics in separate cells, where possible, and maintain high suction on collection wells without damping down or rotating off the wells to stimulate methane production.]	[DEC, DOH]	[5 years Begin – 2023 and annually]	[Environmental groups, regulated community]	<a href="#">Landfill Gas-to-Energy: Toxic and Bad for the Climate... Not Green or Renewable</a>
[Before utilizing landfill gas, require that toxic chemicals in the gas be filtered into a solid medium, like a carbon filter, and that these filters are stored onsite or sealed and re-landfilled so that they are not sent to a "carbon regeneration" facility or other such facility to be burned (putting contaminants into the air). Filtered landfill gas should be used only in hard-to-electrify sectors like industrial heating or aviation fuel, and should not be injected into natural gas lines or otherwise used in transportation.]	[DEC, DOH]	[5 years Begin – 2023 and annually]	[Environmental groups, regulated community]	<a href="#">Landfill Gas-to-Energy: Toxic and Bad for the Climate... Not Green or Renewable</a>  We agree with monitoring for methane at co-digestion facilities, but we <b>ultimately want to limit organics in co-digestion facilities as much as possible</b>
[Remove landfill gas-to-energy from eligibility as a renewable energy source under the New York Renewable Portfolio Standard so as to not subsidize landfills with clean energy ratepayer dollars, and to stop creating incentives for the mismanagement of landfills where gas formation should be minimized and gas capture maximized.]	DEC [DOH]	5 years Begin – 2023 [and annually]	[Environmental groups, regulated community]	<a href="#">Landfill Gas-to-Energy: Toxic and Bad for the Climate... Not Green or Renewable</a>

<p><del>Amend</del>[Review quarterly] regulations <del>as-needed</del> to enhance GHG emission monitoring and leak reduction.</p>	DEC	5 [3] years Begin – 2024	[Environmental groups, affected communities]	
<p>Implement policies, procedures, and regulatory revisions to apply CLCPA evaluation requirements to solid waste management facility permitting activities. Investigate mitigation methods at landfills that would reduce the impact on CLCPA goals, including identification of methane-generating wastes and pre-processing to reduce potential for GHG emissions or redirection of those wastes to alternative facilities (e.g., organics composting, <del>MSW composting</del>, anaerobic digestion, <del>ete</del>.) where GHG emissions are reduced.</p> <p>[Require that contaminated organic streams – sewage sludge (“biosolids”), and the organic fraction of municipal solid waste – be anaerobically digested to stabilize them for safer landfilling by reducing methane generating potential, and reducing volume and water weight.</p> <p>Require that clean organic streams (i.e. source separate food scraps and yard waste, certain animal wastes) be aerobically composted.</p> <p>Require that compost that contains toxic concentrations of microplastics, PFAS, and other toxic contaminants as measured be strictly used for public works projects and landscaping, not for growing food.]</p>	DEC	[Begin 2023] Ongoing	[Environmental groups]	<p><a href="#">Report: Zero Waste System Leftovers - Eco-Cycle</a></p> <p><a href="#">Anaerobic Digesters   Energy Justice Network</a></p>

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Goal: Investigate innovative means of reducing environmental impacts from solid waste management activities.				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations

<p>[Fund 5-10 pilots per county, based on population and,] <del>support changes and</del> evaluate funding mechanisms to support purchasing and use of on-site organics processing equipment (e.g., small-scale anaerobic digesters, [in-vessel composting, vermicompost, compost tumblers,] etc.) at apartment buildings, convention centers, restaurants, schools, and other locations that generate significant amounts of food scraps and other organic wastes. [Require each pilot to submit a report with outcomes to the public dashboard.]</p>	<p>Legislative[- budget]</p>	<p><del>5 years</del> Propose – 2024 Begin [pilots] – 2026 [First report released to the public, no later than - 2027]</p>	<p>Climate Action Council, DEC, ESD, organic waste generators, building/facility owners [conservation boards, solid waste advisory boards]</p>	<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Support efforts to require solidification of industrial, commercial, or remedial wastes that contain PFAS compounds prior to disposal in solid waste landfills. [The air, water, and soil of workers and EJ communities must be protected from processes to solidify harmful chemicals.]</p>	<p>Legislative, DEC</p>	<p>1–5 years Propose – 2024 Begin – 2028</p>	<p>Waste generators, DEC, solid waste landfills [affected communities, labor associations]</p>	
<p>[Ban the sale of wet wipes in New York State]</p>	<p>[Legislative]</p>	<p>[Enact 2025]</p>	<p>[Environmental groups, SUNY, CUNY, solid waste advisory board]</p>	<p>Wet wipes create waste and damage sewage treatment systems, wasting virgin resources. In a 2021 government consultation on banning wet wipes, 96% of people said they supported the idea. <a href="#">Plastic wet wipes ban planned in England to tackle pollution</a> (UK)]</p>
<p>Investigate available technologies for solidification of landfill leachate and feasibility of requiring landfills to solidify leachate for landfill disposal, <del>which would</del> [to quantify any] reduce[d] loading of contaminants, including emerging contaminants, in WRRFs and reduce contamination of downstream [water bodies] <del>materials, such as biosolids</del>. [Annual reports on findings must be on the public dashboard.]</p>	<p>DEC</p>	<p>2 years Begin – 2023 [First report is issued 2025]</p>	<p>Regulated community, WRRFs</p>	<p>Sewage treatment plants are not designed for toxic chemical capture or detoxification, and these contaminants end up in public water bodies where effluent is discharged, and in the sewage sludge that rightfully ought to be</p>






				landfilled, which would simply return the toxic contaminants to where they came from. The point of this should not be to try to detoxify sewage sludge ( "biosolids") in order to try to demonstrate this sludge can be made safe enough for land application, which is why we suggest removing that wording.
Prohibit incinerator fly and bottom ash "beneficial use," "recycling," and use of ash as alternative daily cover material at landfills. Prohibit mixing of fly and bottom ashes. Require that fly ash and cement kiln dust be transported and disposed of as hazardous waste.]	DEC	<del>3</del> -years Begin – 2023 [Ongoing]	Regulated community, construction industry, municipal highway departments, DOT	<p>Trash incinerator fly ash is handled as hazardous waste in several other countries. Under the old test that predated the TCLP test method, fly ash would test hazardous for lead and cadmium 91% and 97% of the time, respectively, and bottom ash 36% and 2% of the time, respectively. See this, and the problems with the TCLP test method, at <a href="https://www.energyjustice.net/incineration/ash.pdf">https://www.energyjustice.net/incineration/ash.pdf</a> (ash test results summarized on page 2).</p> <p>It should be noted that EPA's testing for whether incinerator ash is legally hazardous is based solely on leaching into groundwater as an exposure path, and not on exposure</p>



				<p>through inhalation (where ash can blow off of trucks or off of landfills when used as daily cover), or in scenarios where such ash is “beneficially used” and exposing workers and the public more readily.</p> <p>Furthermore, the toxic chemicals present in fly and bottom ashes from trash incinerators typically exceed New York’s site cleanup standards. Find this comparison at <a href="https://www.energyjustice.net/incineration/ashvssoilcleanup.pdf">https://www.energyjustice.net/incineration/ashvssoilcleanup.pdf</a>.</p>
Investigate <b>opportunities</b> [environmental and health impacts of] <del>for</del> new case specific beneficial use determinations to be added to Part 360 in future rulemakings, [only for non-toxic] <del>especially for</del> materials such as glass and other materials that could provide significant waste diversion if clear reuse [or recycling] options and materials sources and markets could be established. [Prohibit “beneficial use” or recycling of incinerator fly and bottom ashes, blast furnace slag, gasification slag, and cement kiln dust.]	DEC	5[3] years Begin – 2023	[Environmental groups, solid waste advisory boards]	
[Monitor groundwater, ground, and air around train routes that transport bottom or fly ash and MSW. Publish annual results on public dashboard.]	[DEC]	[First annual report 2025; ongoing]	[Environmental groups]	

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**Goal: Improved data collection and analysis processes and methodologies related to solid waste management. [Report all results to the public.]**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>Identify and categorize commercial and industrial infrastructure in New York utilizing records from other state agencies and/or [North American Industry Classification System (NAICS)] <del>Standard Industrial Classification (SIC)</del> codes or other system classifications. [Make the results of these annual studies available to the public on the dashboard.]</p>	DEC	<p><del>3</del>-years Begin – 2023 [Annual reporting]</p>		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Investigate and utilize innovative methods and web-based tools (e.g., surveys, electronic data requests, etc.) to collect information on [participation rates, population responsiveness to educational campaigns, measurement of effectiveness to increase participation,] waste generation, reduction, reuse, and recycling from commercial and industrial generators and generators of C&amp;D debris. [Make the results of these studies available to the public on the dashboard.]</p>	DEC	<p>Ongoing [Annual Reporting]</p>	<p>[Solid waste advisory boards]</p>	<ul style="list-style-type: none"> <li> Final Dissertation Marj...</li> <li> Optimizing Recycling i...</li> <li> UnderstandingParticip...</li> <li> Public Participation for...</li> <li> REAPIndexWMAantay...</li> </ul> <p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Identify methods of extrapolating data reported by portions of the commercial and industrial waste sectors in order to estimate total generation and diversion in each sector. [Make the results of this study available to the public on the dashboard.]</p>	DEC	<p><del>3</del>-years Begin – 2023 [Ongoing]</p>	<p>[Rutgers Center for Advanced Infrastructure and Transportation, New York Metropolitan Transportation Council]</p>	<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>

<p>Implement electronic annual reporting <del>options</del> [requirements] for [data from] solid waste management facilities [including but not limited to throughput tonnage of all streams, emissions and effluents. For waste data, require disclosure of waste types, amounts, and sources going to all destinations, tracking waste in and out of transfer stations, and recording ultimate destinations by name, type, and location, even those out-of-state. Make annual reports available to the public on the dashboard.]</p>	DEC	<del>3-years</del> Begin – 2023 [Ongoing]		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p> <p>Requirements are more verifiable than options.</p>
<p>Implement electronic annual reporting <del>options</del> [requirements] for [all modes of] waste transporters [and waste storage]. [Monitor for emissions, spillage, blowoff, toxics, leachate, and odor violations. Make annual reports available to the public on the dashboard.]</p>	DEC	<del>3-years</del> Begin – 2023 [Ongoing]		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Identify discrepancies or data gaps in data collected from solid waste management facilities and design methods to improve data collection and validation. [Make annual reports available to the public on the dashboard.]</p>	DEC	<del>2-years</del> Begin – 2023 [Ongoing]		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Implement methods of differentiating and analyzing data related to recyclables handling and recovery facilities based on facility design (e.g., dual stream, single stream, drop-off, [contamination, effectiveness of scanning technology, frequency of machinery stalls and breakdown and their causes, speed of conveyor, worker injuries, combustion events from batteries and other combustible items,] etc.). Make annual reports available to the public on the dashboard.</p> <p>Design educational campaigns around incendiary and other hazardous events where the public can learn proper recycling and measure the data post-educational outreach to see if frequency of events has been mitigated.]</p>	DEC	<del>4-year</del> Begin – 2023 [First annual report 2025]		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>[Study methods which increase efficiency of fines on entities that do not comply with solid waste law. Implement those methods found to increase efficiency. Urge legislation and</p>	[DEC]	[Begin - 2023 Implement by 2025]	[Health and Environmental	<p>It is essential to report on important program results to the public to enable rational</p>

funding for enforcement. Report on enforcement actions on the dashboard.]			organizations, comptrollers]	planning going forward.
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Goal: <b>Support</b> [Enact] improvements to grant programs for municipal waste reduction and recycling [activities and municipal landfill closure and landfill gas management].				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
Support new funding for municipal landfill closure and landfill gas management grant program [and recycling grants so that DEC can keep up with applications for funding from municipalities. Municipalities should receive funding within two years of successful application.] Existing waiting list projects require total funding of approximately \$10 million, and applications for 6 of the 10 current waiting list projects have waited more than 10 years for reimbursement. At current funding levels, it will take more than 36 years to reimburse municipalities for their investments in landfill cover and gas management systems.	Legislative [-budget]	1 year Propose – 2024 Begin – 2025 [Achieve funding schedule by 2026]	DEC, municipalities	
[Provide financial and technical assistance to counties or groups of counties that want to host their own small, publicly-owned landfill, so long as the landfill is part of a system that strictly follows the Zero Waste Hierarchy, including biological stabilization to digest the organic fraction prior to landfilling (reducing water weight and volume, and	[Legislative, DEC]	[3 years Propose - 2024 Begin 2026]	[New York State Association of Counties]	New York is the nation's #1 MSW exporter and has been for at least 30 years. With the state's ten trash incinerators reaching their end-of-life in the next

<p>minimizing gas formation, odors and leachate), and the landfill management best practices to minimize gas formation and maximize gas collection, as outlined in the "Minimize GHG emissions from solid waste management facilities" section.]</p>				<p>decade, and some controversial landfills likely to close in the time as well, New York has a serious landfill capacity shortage. Smaller, publicly-owned landfills can be pioneers for how to manage landfills in a more responsible way to handle the residuals as we get closer to Zero Waste.</p> <p><a href="#">Report: Zero Waste System Leftovers - Eco-Cycle</a></p> <p><a href="#">Zero Waste Hierarchy</a></p>
<p>[DEC shall monitor and apply for federal grants to assist in funding of recycling, reduction, and reuse. DEC shall only apply for landfill gas projects for decommissioned landfills. DEC shall report to the public on the dashboard all grants received and reports generated.]</p>	<p>[DEC]</p>	<p>[Ongoing, starting 2024]</p>	<p>[Solid waste advisory boards, environmental groups, municipalities]</p>	
<p><del>Explore opportunities to convert current program to a direct funding system if disposal surcharge legislation is enacted.</del> [No grant received by New York State from the federal government or funding from the legislature for grant purposes shall be used to pay surcharges.]</p>	<p>Legislative</p>	<p><del>5-years</del> Propose – 202[4]5 Begin – 202[5]8</p>	<p>DEC, municipalities</p>	
<p>Continue to investigate improvements and modifications to the MWRR grant programs. Significant improvements to the MWRR grant regulations were implemented in 2017, but additional streamlining and program improvements may be available that will speed up review times and reduce wait times for reimbursement to municipalities. [Grants made should be detailed in the public dashboard. These improvements shall be implemented starting 2025.]</p>	<p>DEC</p>	<p>[Start by 2025] Ongoing</p>	<p>Municipalities</p>	

[DEC shall evaluate grant applications from municipalities according to whether the proposed expenditures would significantly improve source reduction, reuse, recycling and/or composting and significantly reduce the quantity (and toxicity) of MSW going for disposal, or reduce the toxicity of disposal impacts (i.e. avoiding incineration) and whether the proposed expenditures are cost-effective uses of funding .Expenditures and projects should be detailed on the public dashboard.]	[DEC]	[Begin 2024, annually]	[Solid waste advisory boards, environmental groups]	
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**Goal: Implement legislative changes related to local solid waste management planning and evaluate potential modifications and improvements to local solid waste management planning (LSWMP) processes and procedures.**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Jurisdictions, citations
[The State must enact a law requiring that every county reduce waste going for disposal by 50% by 2026 and by 90% by 2030. The law shall also require the local jurisdictions produce a roadmap with milestones and dates for achieving them and honor these milestones. LSWMPs must provide a roadmap for implementing the State enacted goal.]	[Legislative]	[50% diversion by 2026 and 90% by 2030]	[Solid waste advisory boards, environmental groups]	
[Enforce that all milestones in local solid waste management plans are implemented by the year proposed in the local plan.]	[DEC]	[Begin enforcement 2025]	[Local Jurisdictions, solid waste advisory boards]	
<del>Support</del> [Enact] requirements for municipalities to develop and implement LSWMPs, or to become affiliated with planning units with approved LSWMPs.	Legislative	<del>5-years</del> Propose – 2024 Begin [Enact]– 202[5]7	DEC, Municipalities[, solid waste advisory boards, environmental groups]	

Identify legislative opportunities that impact LSWMP requirements and apply them to program procedures and prepare draft rulemaking to implement changes as necessary.	DEC	5 years Begin – 2023	Municipalities	
Evaluate internal procedures utilized to implement program and apply adjustments to improve delivery of program and to support local planning efforts.	DEC	Ongoing	Municipalities	

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Apply particular focus on [local] planning units that have not pursued new or updated plans and on municipalities that are unaffiliated with a planning unit and have not completed a CRA. [Also apply particular focus on local planning units whose LSWMPs have not resulted in at least 20% increase in diversion or reduction in MSW for disposal, or that have not resulted in any new infrastructure or programs. LSWMPs should be published on dashboard.]	DEC	3 years Begin – 2023	Municipalities	
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<b>Goal: Improve implementation of Site Investigation and Mitigation programs.</b>				
<b>Action Items</b>	<b>Implementat ion Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Jurisdictions, citations</b>
<del>Support</del> [Establish] funding under Article 27, Title 12 to reimburse municipalities that have implemented mitigation and remediation at solid waste sites that have impacted drinking water sources, and prepare plans for a grant program that would provide for distributing these funds.	Legislative	5 years Propose – 2025 Begin – 202[6]7 [Statewide - 2030]	Municipalities[, Impacted residents]	

<p><del>Evaluate new opportunities to p</del>[P]rovide funding for municipal programs that collect and dispose of waste tires.</p>	<p>Legislative[-budget]</p>	<p><del>5 years</del> Propose – 202[4]5 [Enact]Begin – 20[25]30</p>	<p>Municipalities</p>	<p><a href="#">Coal Burning vs. Co-firing Tires with Coal: Is Adding Tires more Polluting?</a></p> <p><a href="#">Tire Incineration - Solutions   Energy Justice Network</a> (see 2nd paragraph for links to groups with resources on the problems with turf and playground uses)</p> <p><a href="#">Tire Incineration   Energy Justice Network</a></p>
<p>Continue to implement Inactive Landfill Investigation (ILI) program and implement revised procedures to program implementation as necessary.</p>	<p>DEC</p>	<p>Ongoing</p>	<p>Landfill owners [affected communities]</p>	
<p>Issue ILI annual report [to the public] every July as required by Article 27 Title 12.</p>	<p>DEC</p>	<p>Ongoing</p>		<p>It is essential to report on important program results to the public to enable rational planning going forward.</p>
<p>Establish policy for identifying, investigating, and mitigating illegal waste tire disposal sites, establishing standard procedures for identifying illegal disposal sites and establishing time frame for mitigation, provide options for self mitigation by property owners, establish standard consent order language that allows site access for DEC contractors to mitigate sites if landowners fail to do so, and provide methods for documenting completion of mitigation activities.</p>	<p>DEC</p>	<p>1 year Begin – 2023</p>	<p>Regulated community[, affected community]</p>	
<p>Review results from research conducted under memoranda of understanding with SUNY universities for program and regulatory adjustments that would enhance diversion and reuse of waste tires [for purposes that do not involve burning, tires-to-fuels schemes, production of artificial turf, or use of crumb rubber on playgrounds. Research effective methods</p>	<p>DEC</p>	<p>2 years Begin – 2023</p>	<p>[Solid waste advisory boards]</p>	



for tire-to-tire recycling. Publish results in dashboard and DEC make recommendations to solve problems.]				
Work with New York Farm Bureau and other interested groups to investigate strategies and potential programs to reduce waste tire use on farms and for processing of waste tires currently used on farms.	DEC	3 years Begin – 2023	New York Farm Bureau, farming community[, Liberty tires]	
[Enact economic incentives for recycling and reuse of used tires on farms. Ban tire-derived fuels and any type of thermal processing or combustion of tires or tire-derived fuels in New York state or the export of tires or tire-derived fuel for burning or other thermal processing out-of-state.]	[Legislative]	[Enact 2025]	[Environmental groups]	
[DEC shall establish and maintain a public data portal (dashboard), with published datasets, dashboards and API's using data updated in near real-time or released on required reporting schedules that includes source attributes, metadata, and dictionaries. Publish quarterly or annual reports using data collected from MSW facilities and commercial haulers; including facilities and intra-interstate waste flows by county and EJ and Disadvantaged communities and emissions impact (GHGs and other health-damaging emissions) calculations based on these data flows and other analysis.]	[DEC]	[Implement starting 2024; roll out 2025]	[Local jurisdictions, haulers, facilities, Comptroller, solid Waste Advisory Boards]	It is essential to report on important program results to the public to enable rational planning going forward. <a href="#">New York State Releases Enhanced Open Data Handbook   Office of Information Technology Services</a>  <a href="#">NYS Freedom of Information Law   Open Government</a>
[The aforementioned facility and hauler data shall be audited by the Comptroller annually, with \$1,000 assessed as penalty per infraction regarding facilities and haulers that misreport, fail to report, or fail to make public through the online system.]	[Legislative]	[Bill introduced 2024; passes 2025; implemented starting 2026]	[Comptroller]	It is essential to report on important program results to the public to enable rational planning going forward.

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## New Sections

### **[Disaster Debris Recovery and Prevention]**

[We are aware that climate change is accelerating and it is already having serious impacts on coastal and river development. With every storm and flood, building materials, vegetative materials and other materials are created. Disaster-generated materials that could be recycled or composted are being disposed of by landfilling and incineration, creating emissions and effluents. Furthermore, these flooded materials are replaced by employing additional virgin building materials and contents resulting in more greenhouse gases and other emissions. For these reasons, it is imperative that the New York State Solid Waste Management Plan include planning for sustainable disaster debris prevention and recovery.

The amount of disaster debris is increasing faster with every IPCC report that comes out showing flood zones expanding in size and more properties at risk. Intense rainfalls are also becoming more frequent, flooding low-lying areas that are not in mapped floodplains, having caused loss of life in basement apartments and businesses.. Yet, in New York City and other places, instead of reducing development at our shorelines and frequently flooded low-lying areas, New York City Mayors have been driven by the real estate industry to upzone low-lying land at a considerable rate for well over a decade. In some cases (e.g. Inwood in northern Manhattan and Far Rockaway, a barrier island that should have no development, single-story buildings are being replaced with 30 story buildings in floodplains. This is happening all over the City and must stop.

"According to the [City of New York's overview of Sandy's impacts](#), the floodplain boundaries on the FEMA flood maps in effect when Sandy hit indicated that 33 square miles of New York City might be inundated during a 100-year flood. By the end of the storm, 51 square miles flooded—17 percent of the city's total land mass. This extent of flooding exceeded the 100-year floodplain boundaries by 53 percent citywide." This major underestimate of the extent of flooding therefore low-balled the extent of disaster debris then, and with worsening climate change, an even greater percentage of this densely developed and populated city will experience worse impacts with every storm. Ignoring these facts and continuing to allow existing and increasing building in at-risk areas, will make certain that more disaster debris will be created, and at this point, all of it is landfilled and incinerated because of lack of planning.

When new buildings are created on the shoreline, it displaces floodwaters which makes the water higher and go farther inland. In New York City almost \$60 billion will be spent to "protect" some of the shorelines with walls, walling off shoreline views of the water and sending the displaced water to other boroughs. ([New York Times article](#) showing depictions of walls in various locations showing the view before and the blocked view after the wall is built and alternatives by former RPA planners.

The cost of doing nothing is huge and will increase markedly as climate change produces more and nastier storms. Waste will

increase. The State and most jurisdictions are doing nothing to prevent flooding and damage to properties. The New York State Solid Waste Management Plan must have goals and action items to prevent new construction in flood zones and a timeline to clear properties in flood zones. Municipalities must not be allowed to encourage building in flood zones.

The more cost-effective way to prevent further disaster debris generated by flooding is to legislate against building anywhere there is a current flood risk AND where flood risks are projected to be within the building's normal lifespan, which is often 100 years. We must also recover the debris that is generated for recycling and composting. Further, legislation and programs to buy out properties in flood zones will reduce future impacts. This is a critical juncture and if this solid waste management plan does not direct New York State municipalities to minimize disaster waste using planning, zoning, soft solutions, materials recovery and buyouts, the cost for New York State will be considerably higher going forward with more waste.

Adherence to and compliance with accepted disaster event preparedness and planning can have significant impact on the reduction of disaster debris created and misdirected for disposal.

Disaster debris mitigation is an emergency management issue. Local planning implemented by the local emergency management departments, consistent with Federal, State, Local environmental regulation and guidance can prevent unnecessary debris resulting from disaster events and aid in recovery of debris otherwise headed for incineration and landfill.





Not only does this unwise shoreline development waste resources and create emissions, human lives are at increasing risk, not only adjacent to the ocean and rivers, but also in low-lying areas far from rivers and coasts, when there are historic rainfalls of many inches per hour and people drown in basement lodging. But there are many [ways to prevent and recover disaster debris](#). Prevention is always cheaper and more effective than remediation once the damage is done. So prevention of disaster debris waste should be prioritized. Recovery of recyclable and compostable materials (i.e. sustainable disaster debris management) should be part of this SWMP as well. New York City has a new waterfront development plan. The Manhattan Solid Waste Advisory Board in its comments pointed out the need to stop putting new development in flood zones. We recommend DEC adopt language here to maximize disaster debris prevention and recovery for the final NYS SWMP.

## **Disaster Debris Prevention**

Managed Retreat is the term used to describe the collection of [best practices](#) to reduce disaster debris generation. These are recommended by [state government professionals](#) and research academics. Georgetown University has put a [managed retreat toolkit](#) together. Oxford University (UK) has prepared "[Managed Retreat in Practice: Mechanisms and Challenges for Implementation](#)". NOAA has put a [managed retreat best practices toolkit](#) together as well. The [Regional Plan Association's](#) fourth plan urges transition away from places that can't be protected. The National Recycling Coalition is putting a best practices toolkit together as well. Here are a number of links to jurisdictions that have [legislation and/or programs for managed retreat](#).

Elements of managed retreat include:

- Stop building and rebuilding in flood zones
- Stop upzoning flood zones
- Offer money for building owners to move to higher land (voluntary buyout)
- Offer money but require building owners whose building has been severely damaged to accept and move (mandatory buyout)]

<b>[Goal: Fund and Implement Managed Retreat across the state in flood zones]</b>				
<b>Action Items</b>	<b>Implementa tion Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
[Produce a study which geolocates all structures in the 100 year flood plains of New York State as well as flood maps that can be used by local jurisdictions. Advise residents and businesses of this information.]	[DEC, FEMA, Emergency Management Agencies, local planning units]	[Complete by 2026]	[Planning groups, environmental groups [see below, solid waste advisory boards]	These citations represent our positions on this issue:  Consumer Demand a...  Final MSWAB waterfr... <a href="#">New York State Sea Level Rise Task Force</a>
[Designate flood zoning statewide that does not allow new construction or reconstruction of buildings in FEMA designated floodplains (“100 year floodplain”)]	[Legislative, Local planning units]	[Introduce 2025; Implement statewide by 2030]	[Planning groups, Environmental groups, solid waste advisory boards]	Link:  Managed Retreat Is ... <a href="#">New York State Sea Level Rise Task Force</a>
[Exclude floodplains and flood zones from upzoning and planned new developments and waterfront development plans]	[Legislative, local planning units]	[Introduce 2025; Implement statewide by 2030]	[Planning groups, environmental groups, solid waste advisory boards]	Link:  NRC Virtual ZW 2020...
[Offer to buy out owners of properties in flood zones; provide funds to local jurisdictions. There are numerous mechanisms that have been used across the continent to do this.]	[Legislative (budget), local planning units]	[Enact and start implementation by 2026; Implement	[Planning groups, environmental groups, solid waste advisory boards]	New York State has a <a href="#">Voluntary buy-out program</a> but this was very limited in geographic scope after Sandy leaving many

		statewide by 2030]		buildings at risk.
[Require buyouts of at risk properties in a flood zone that have suffered major flood damage; provide funds to local jurisdictions.]	[Legislative (budget), local planning units]	[Enact and start implementation by 2028; Implement statewide by 2035]	[Planning groups, environmental groups, solid waste advisory boards]	There are other jurisdictions that have established required buy-outs. A mandatory program requires enough funding, but not doing so will be more expensive in the long run. In Canada they have been using <a href="#">forced buyouts</a> of structures in flood zones for ten years. “No part of the country has been more aggressive than Quebec. Since 2005, the province, Canada’s largest in area, has prohibited building new homes, or rebuilding flood-damaged ones, in the 20-year floodplain — areas with a particularly high risk of inundation.” The lesson here is the sooner structures can be removed from flood zones, the less waste will be generated.
[Invest in flood buffers like parkland, wetlands, dunes, bioswales, composting, coastal restoration including oyster reefs, and natural features that will soak up floodwaters. There are numerous examples of this.]	[Legislative (budget), local planning units]	[Enact and start implementation by 2026; Implement statewide by 2030]	[Planning groups, environmental groups, solid waste advisory boards]	<a href="#">Link to USDA’s flood attenuation and conservation buffers</a>
[Invest in storm preparation to reduce damage to buildings	[Legislative	[Enact and	[Planning groups,	Learn from Florida and

<p>and vehicles (e.g. stronger building codes, evacuating vehicles, protecting buildings prior to storm (e.g. reusable metal storm shutters).]</p>	<p>(budget), local planning units]</p>	<p>start implementation by 2024; Implement statewide by 2028]</p>	<p>environmental groups, solid waste advisory boards, AIA]</p>	<p>Louisiana building codes</p>
<p>[Take special care to protect EJ communities from flooding via education and outreach.]</p>	<p>[DEC]</p>	<p>[Implement S 2875 by 2025]</p>	<p>[EJ communities, EJ organizations, solid waste advisory boards]</p>	<p><a href="#">New York State Sea Level Rise Task Force</a></p> <p><a href="#">S. 3875: Community Disaster Resilience Zones Act of 2022</a></p> <p>December 20, 2022 President Biden signed S.3875, the Community Disaster Resilience Zones Act, into law. The Community Disaster Resilience Zones Act designates zones in disadvantaged communities that are “most at risk to natural hazards.” If a community is designated under the Act, it will receive targeted federal funding and increased federal cost-share for projects that reduce the impacts of natural hazards and climate change. In May 2023, the Federal Emergency Management Agency <a href="#">published a notice and request for public input</a> on implementation of the Act, including the process used</p>

				to designate community disaster resilience zones. The comment period closes July 25, 2023.
[Disallow installing new infrastructure in flood zones. Along with upzoning, infrastructure such as larger sewers and water mains, new and repaired streets continue to be built in flood zones.]	[Legislative]	[Enact by 2025; Implement by 2026]	[DEC, local jurisdictions' planning units, environmental groups]	This encourages long-term habitation in a long-term unsafe area and needs to stop. If the decision is to abandon at-risk areas, infrastructure should not be rebuilt.

### [Disaster Debris Recovery]

[For those structures that remain in risky areas there are two main steps for maximizing the recovery of compostable, recyclable, and reusable materials after a storm.

1. Ensuring that there is a uniform educational and motivational outreach campaign statewide to instruct and motivate New Yorkers how to handle their own disaster debris (i.e., pile into separate categories: vegetative, metal, recyclable building materials, etc)
2. Ensuring that the state and local jurisdictions have access to mobile chipper, MRF and other recycling and composting infrastructure and storage space, and that deployment and assignments for these are well coordinated to be ready after storms hit.

[If this is done, a large fraction of the disaster debris will be recycled and composted.]

<b>[Goal: Plan and Establish a system to deploy mobile infrastructure, collect, process and market source separated disaster debris]</b>				
<b>Action Items</b>	<b>Implementation Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
[Prepare guidance to local jurisdictions on how and when to	[DEC]	[Complete	[Environmental groups,	

<p>educate residents and businesses on source separation (e.g. organics, metal, hazardous, white goods, etc) of disaster debris at curbside.]</p>		<p>and disseminate statewide by 2025]</p>	<p>solid waste advisory boards, local jurisdictions]</p>	
<p>Fund local jurisdictions to educate residents and businesses annually to source separate disaster debris into reusable, recyclable, compostable, and residual piles.</p>	<p>[Legislative-budget]</p>	<p>[Begin 2024 - ongoing]</p>	<p>[Solid waste advisory boards, local jurisdictions]</p>	<p>These generators usually pile all disaster debris in one place making it unnecessarily difficult to recover materials for higher and better use. To maximize recovery, residents and businesses must source separate disaster debris into piles for composting (i.e. vegetative materials, trees, branches), and recycling (i.e. metals, gypsum, reusable building materials like bricks and wood). In hurricane-prone areas such as Florida, the government has for decades educated its residents to be prepared for hurricanes (e.g. with a go bag, filling the gas tank, boarding up the windows, etc). But they don't include instructions on source separation of disaster debris. It would be easy to include these in the annual campaigns. There needs to be annual resident education on source separation for recycling and</p>



				composting collections as described above.
[Study the composition of different types of natural disasters that occur in New York State (e.g. hurricanes, tornadoes, ice storms) paying careful attention to categories of material that are reusable, recyclable and compostable.]	[DEC]	[Complete by 2026]	[Local jurisdictions, solid waste advisory boards]	
[Fund mobile MRFs and large wood chippers, as well as their staging areas and personnel.]	[Legislative-budget]	[Begin 2024; statewide network by 2027]	[Local jurisdictions, solid waste advisory boards]	Once residents are source separating materials at the curb post-storm, there must be a system to collect, process, and market these additional resources. This recovery system would include special contracts for collecting and for sorting / baling recyclables and for composting. Much as the utilities send crews into disaster areas from afar, sanitation departments should also be connected to assist each other post-disaster. Staging areas for recycling and composting should be created in many parts of the state (e.g. each DEC region). There must be processing infrastructure (i.e. large wood chippers, mobile mini-MRFs) that can be deployed post-disaster. Markets for the recyclables and compost should be arranged in advance.

[All local solid waste management plans shall include provisions for disaster debris prevention and recovery that match with the recommendations made in this section.]	[local jurisdictions]	[Complete statewide by 2025]	Environmental groups, solid waste management boards	
[Prepare guidance to local jurisdictions on how to design and implement contracts for use after disasters strike (e.g. storage, collection, and processing of recyclables and organics).]	[DEC]	[Complete and disseminate statewide by 2025]	[Environmental groups, solid waste advisory boards, local jurisdictions]	
[Establish staging areas across the state for deployment of mobile infrastructure (e.g. wood chipper, mobile material recovery facility (MRF)) and coordination of resources.]	[DEC, local jurisdictions]	[Complete study by 2024; complete purchase of staging areas and staff resources by 2026]	[Solid waste advisory boards, environmental groups]	
[Fund for mobile wood chipper and material recovery facility (MRF) infrastructure and storage to recover recyclables and organics from disaster debris.]	[Legislative -budget, Local Planning Units]	[Begin in 2024; statewide system implemented by 2030]	[Emergency Management Departments, Environmental groups, solid waste advisory boards, local jurisdictions]	
[Fund for staff to deploy mobile infrastructure to disaster zones and establish markets or end uses for materials collected. Staffing needs to include a designated (independent from carting entities) debris monitor to assure proper separation, collection and routing of debris ]	[Legislative, local planning units]	[Begin in 2024: statewide system implemented by 2030]	[Emergency Management Departments, Environmental groups, solid waste advisory boards, local jurisdictions]	
[Coordinate with other states' Emergency response to make mobile chippers, MRFs and staff available when they are	[DEC]	[Begin 2024, system	[Emergency management	

needed.]		established 2025]	departments, governors, MRF and chipper manufacturers]	
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### [Local Planning for Disaster Debris Management]

[Disaster Debris Management is essential as it combines environment conservation with emergency management. This subpart addresses specific requirements for local environmental conservation departments, which should be coordinated with local emergency management and local planning departments. The methodology, techniques, and practices are based upon national standards and practices, including FEMA’s Disaster Debris Management guidance and FEMA’s Public Assistance for such preparedness, response, recovery, mitigation, and prevention efforts]

**[Goal: Alignment/Compliance with FEMA’s Mission Areas in its National Preparedness Goal: prevention, protection, mitigation, response, and recovery. Reduce disaster debris sent to incineration and landfill through source reduction, managed retreat, more effective emergency planning and response, and materials management policies.]**

Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
<p>[Require that disaster readiness plans follow the principles of Prevent, Prepare, Respond, Recover, and Mitigate]</p> <p>Require adherence to emergency management legislation (see justifications in this section) and associated guidance and coordinating with state and local entities who have coordinating relationships with the local communities and their local government infrastructure.</p> <p>Create Disaster Debris Management Legislation in NYCRR Title 6 Chapter 9, Subpart 646-X.2, assuming 646-X is created for Solid Waste Management, and 646-X.1 details the solid waste management legislation. Legislation should require local entities as part of the required state Zero Waste Plan to follow FEMA 325 guidance in creating a disaster</p>	<p>[Legislative, Local Municipalities Waste Management and Disaster Preparedness And Recovery staff (<b>DEC, local planning units</b>) as part of their Zero Waste</p>	<p>[Enact 2024, begin implementation 2025]</p>	<p>[Local emergency management departments, <b>FEMA,</b>]</p>	<p>Debris Management Planning <i>Public Assistance Debris Management Guide</i> <a href="#">Page 47 - 91</a></p> <p><a href="#">Chapter IX - Independent Agencies within the Department</a></p> <p><a href="#">FEMA 325 Public Assistance - Debris Management Guide</a></p> <p><b>(see Appendix C for</b></p>

<p>debris management section to that plan that at a minimum consists of:</p> <ul style="list-style-type: none"> <li>● <b>Debris Forecast</b> that lists the required response and recovery resources, the number and size of storage and reduction sites, and the final disposition of the disaster-related debris (sites and locations).</li> <li>● <b>Collection Document</b> that specifies strategic plans for response activities and debris recovery consistent with the forecasts required in the Debris Forecast section of FEMA 325</li> <li>● Debris Prevention, Reduction, Recycling, and /Composting plan to reduce the amount of debris resulting from an event and increasing of recycling and potential end-use products for specific markets</li> <li>● Final Disposition Operations inventory/Accounting of final disposition sites for the whole, reduced, and recycled quantity of estimated debris in the Debris Forecast]</li> </ul>	<p>Management Plans]</p>			<p><a href="#">definitions)</a></p>
<p>[Local Communities should be required to conduct a Community Threat and Hazard Identification and Risk Analysis (THIRA) consisting of providing answers to the following three questions as they pertain to the Prevention, Response, Recovery and Mitigation of disaster debris:</p> <ul style="list-style-type: none"> <li>● What events and hazards and risks can affect the local community? How vulnerable is the local community to the hazard (i.e., what is the impact of the hazard)?</li> <li>● If the identified events and hazards occur, what would be their likely impacts to the community?</li> <li>● Based on those impacts, what capabilities should our community have? What degree of readiness is necessary to respond to the hazards?</li> </ul> <p>Local jurisdictions shall be required to engage in ongoing</p>	<p>[Legislative, Local Municipalities Waste Management and Disaster Preparedness And Recovery staff (<b>DEC, local planning units</b>) as part of their Zero Waste Management Plans]</p>	<p>[Enact 2024, begin implementation 2025]</p>	<p>[Local emergency management departments, FEMA]</p>	<p>Debris Management Planning <i>Public Assistance Debris Management Guide</i> <a href="#">Page 47 - 91</a></p> <p><a href="#">Chapter VI - General Regulations - NYS Dept. of Environmental Conservation</a></p> <p><a href="#">FEMA 325 Public Assistance - Debris Management Guide</a></p>

reporting requirements on capabilities and readiness required to ensure compliance. Any reports and THIRA must be in the public dashboard.]				
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**More references and definitions are included in [Appendix C](#)**

## [Environmental Justice]

[Access to sanitation resources and services should be a universal right, [enabling a healthy home and outdoor environment for each resident](#) of the state regardless of their income level or racial/ethnic group. (Ref: State proposition of a right to a healthy environment). There should be equity in the municipal distribution of recycling resources and the sanitation services that enable clean streets free of trash and toxic chemicals. A recent cleanup in a low income neighborhood in New York City found heavy trash, especially plastics, along avenues lacking litter baskets that elsewhere in the city can be found on each corner. The plastics contain toxic chemicals that are endocrine disruptors and are carcinogenic. They enter the drain and pollute our waters, soil, and air. Environmental Justice communities are often underserved and overburdened when it comes to disaster preparation and response/management.]

<b>[Goal: Legislate and implement equitable solid waste and sanitation services across the state ]</b>				
<b>Action Items</b>	<b>Implementation Lead</b>	<b>Time to Implement</b>	<b>Other Key Stakeholders</b>	<b>Justifications, citations</b>
[Require that municipalities provide public housing and low income neighborhoods with recycling, composting, and sanitation resources and services (e.g. curbside collection, e-waste collection, textile recycling, recycling bins, litter baskets) that are equivalent in quantity and quality in servicing to those in private housing and higher income neighborhoods. Require municipalities to monitor the distribution of such services and issue reports to the public of the results quarterly. Require municipalities to correct gaps in equivalence for such services, resolving litter complaints on a timely basis – within 24 hours. Municipalities that do not comply will receive fines that directly go to public-housing based environmental groups, such as (NYC) Green City Force and Compost Power.]	[Legislative]	[Begin 2023; Ongoing]	[Local jurisdictions, Environmental justice, environmental, and health organizations, solid waste advisory boards]	It is essential to report on important program results to the public to enable rational planning going forward.
[Require equity in the distribution of land based and marine transfer stations between low income communities of color and other communities, with a goal of reducing truck, rail, and barge traffic/diesel emissions in overburdened	[Legislative, DEC]	[Begin 2023]	[Local Jurisdictions, solid waste advisory boards, environmental justice organizations]	<a href="#">See Appendix D for justification</a>

<p>communities as well as asthma levels. Measure air quality (i.e. PM2.5, NOx, SOx) in EJ communities and ensure they don't exceed statutory limits. DEC should monitor the air and enforce these laws.]</p>				
<p>[Prioritize identification of and remediation of brownfields. Review properly remediated brownfields for suitability as building organics processing infrastructure. Reports about identification of brownfields and status of remediation should appear in the public dashboard.]</p>	<p>[DEC, local jurisdictions]</p>	<p>[Begin 2024, ongoing]</p>	<p>[EJ communities and organizations]</p>	<p><a href="#">Brownfield Cleanup Program - NYS Dept. of Environmental Conservation</a></p>

**Appendix D is case studies for environmental impacts of incinerators on overburdened communities**

## [Update and revise the NYS Solid Waste Management Act of 1988]

[Goal: Update and revise the NYS Solid Waste Management Act of 1988]				
Action Items	Implementation Lead	Time to Implement	Other Key Stakeholders	Justifications, citations
[Adopt the internationally peer-reviewed definition of Zero Waste and replace the state's waste hierarchy with the internationally peer-reviewed Zero Waste Hierarchy as codified by the Zero Waste International Alliance.]	[DEC]	[2024]		Find both at <a href="#">Zero Waste Hierarchy of Highest and Best Use 8.0</a>
[Zero Waste mandated goal DEC should review the 2023-passed New York City Council Zero Waste bills (recently passed with veto-proof majority)]	[DEC, Legislative, governor]	[Bill initiated 2024; Pass bill 2025]	[Solid Waste Advisory Boards, environmental groups, local jurisdictions]	<a href="#">Intro 244-A</a> <a href="#">Intro 274-A</a> <a href="#">Intro 275- A</a> <a href="#">Intro 280-B</a> <a href="#">Intro 281-B</a>
[DEC shall make the SWMA CLCPA compliant.  DEC shall not accept or approve a new permit or modified permit application for a solid waste management facility in the absence of an up-to-date and approved Local SWMP in the jurisdiction in which the facility or modified facility is proposed to be located or utilized.]	[DEC]	[Implement starting 2024]	[Solid Waste Advisory Boards, environmental groups, local jurisdictions]	
[Local and DEC SWMPs must be based on data for the year immediately preceding the year in which the SWMP is submitted for review and approval.]	[DEC, local jurisdictions]	[Commence 2024]	[Solid waste advisory boards, regulated community]	It is essential to report on important program results to the public to enable rational planning going forward.
[Update the 1988 NYS Solid Waste Management Act to	[Legislative]	[Enact by	[DEC, Stakeholder solid	Linked is line-by-line



<p>require that all municipal plans include commitments and concrete steps to achieve expansion of municipal waste prevention and reuse to reach a 90% reduction goal by 2030 with interim mandates of <b>50% by 2026 and 75% by 2028</b>]</p>		<p>2027]</p>	<p>waste advisory groups]</p>	<p><a href="#">recommendations by MSWAB for updating and revising the NYS Solid Waste Management Act of 1988.</a></p>
<p>[Adopt the <a href="#">linked version of the NYS Solid Waste Management Act of 1988.</a>]</p>	<p>[Legislative]</p>	<p>[Enact by 2027]</p>	<p>[DEC, Stakeholder solid waste advisory groups</p>	

## **Appendix A - Justification for banning combustion/incineration for disposal of pharmaceuticals**

Pharmaceuticals are often halogenated compounds, containing fluorine, chlorine, or bromine. When combusted, these produce acid gasses, dioxins/furans, and other toxic chemicals. Supercritical water oxidation can safely cleave the halogen-carbon bonds and release them to water that is contained and can be tested (and re-processed if necessary) before being released. It's been proven effective on chemical weapons and in other applications. There are also non-burn solutions involving activated carbon where pharmaceuticals can be mixed with the carbon at the source to make it safe for disposal.

Link: [Activated carbon and other options](#)

Link: [Supercritical Water Oxidation](#)

Link: [Supercritical Water Oxidation for Environmentally Friendly Treatment of Organic Wastes](#)

Link: [Sub and supercritical water oxidation of pharmaceutical wastewater - ScienceDirect](#)

Link: [Alkaline hydrolysis might be useful for some pharmaceuticals](#)

*[\(Click here to return to relevant action item in document\)](#)*

## **Appendix B - Justification for not manufacturing "compostable" plastics**

Compostable plastics are made from biotech corn ([92% U.S. corn is GMO](#)) which means more Roundup (glyphosate) herbicide spraying, more associated cancers, deformed amphibians, etc. The corn is turned into polylactic acid (PLA) in factories to make compostable plastics. An analysis of estrogen-mimicking chemicals leaching from plastics found that PLA plastic is the second worst of them all ([91% of samples were positive, only polycarbonate -- plastic #7 -- was worse, at 100%](#)), so it's not even safe to eat with.

Regarding disposal, it's often lose-lose-lose:

Composting: With single-use "compostable" plastics, many places serving with compostable eatingware don't provide a composting option. Where a consumer CAN access a composting bin, it's not often not clear whether it goes to a commercial facility that can handle this sort of plastic (see example from VT below) -- and workers usually have no idea if you ask them if the compost goes to a place that can handle compostable plastics.

Recycling: It's usually hard to read whether "compostable" plastic cutlery is actually oil-based plastic or a bio-based compostable and -- regardless -- consumers don't typically know that actual plastic cutlery shouldn't be put in a recycling bin because it cannot be sorted by commercial material recovery facilities (MRFs) because it's too one-dimensional. Consequently, some compostable plastics will end up in recycling, where it's a contaminant.

Trash: Where it ends up in the waste stream, it's harmful in incinerators and possibly worse than normal plastics in landfills if they can break down and form GHGs more than real plastics would.

Compostable plastics aren't the solution. Ending single use products is the solution.

Link: [Colorado's lead composter imposes stricter accepted materials rules to curb contamination](#)

Links: [A Message from Composters Serving Oregon](#)

Public dissemination of and easy access to this information can increase organics program participation by increasing motivation.

*[\(Click here to return to relevant action item in document\)](#)*

## **APPENDIX C - Disaster Debris Definitions and Supplemental Justifications**

**Disaster debris:** Scattered items or materials either broken or misplaced by a disaster.

**Disaster debris management:** Planning and operations for debris with respect to prevention, preparation, response, and recovery of a disaster.

**Scope.** This sub-part applies to the department and state political subdivisions.

**Effective Date:** 3 years from legislative approval.

**General Requirements.** The requirements of this paragraph are applicable to the extent practicable to meet the goals of disaster debris management:

**The following FEMA guidance, including updates and referenced documents, shall be complied with to the extent practicable to meet the goals of Disaster Debris Management (See references 1-5 below)**

1. **Specific Requirements.** All affected entities shall:
  - a. Perform a Threat and Hazard Identification and Risk Analysis, per FEMA's THIRA guidance and standards.
  - b. Plan, develop, test, drill, exercise, and operationalize relevant prevention, preparation, response, and recovery elements of disaster management, per Homeland Security Exercise Evaluation Program (HSEEP) guidance and standards.
  - c. Budget and resource, including mutual aid agreements, the debris management plans and operations.
  - d. Use the Whole Community approach for stakeholder planning, involvement, and communications .
  - e. Annually report capability and readiness levels
2. **Recommendations.** Permitted and recommended disaster debris management activities include:
  - a. To the extent practicable, planning and operations should be consistent with environment and climate planning.
  - b. To the extent practicable, planning and operations should coordinate with neighboring, regional, State, and Federal, entities.
3. **Additional Resources.** The following trainings and documents should be considered in planning and operations. **(See references 6-18 below)**

**Justification references:**

- (1) Link: [FEMA 325 Public Assistance - Debris Management Guide](#)
- (2) Link: [FEMA 327 Public Assistance - Debris Monitoring Guide](#)
- (3) Link: [FEMA 323 Public Assistance Applicant Handbook](#)
- (4) Link: [Comprehensive Preparedness Guide 101: Developing and Maintaining Emergency Operations Plans](#)
- (5) Link: [CPG 201: Threat and Hazard Identification and Risk Assessment \(THIRA\) and Stakeholder Preparedness Review \(SPR\) Guide](#)
- (6) Link: [FEMA 321 Public Assistance Policy Digest](#)
- (7) Link: [FEMA 329 Debris Estimating Field Guide](#)
- (8) Link: [FEMA Debris Management Plan Workshop Student Handbook](#)
- (9) Link: [FEMA 9580.4 Fact Sheet: Debris Operations: Clarification](#)

- (10) FEMA 9580.200 Fact Sheet: Debris Removal from Private Property,
- (11) FEMA 9580.201 Fact Sheet: Debris Removal – Applicant’s Contracting Checklist
- (12) FEMA 9580.202 Fact Sheet: Debris Removal – Authorities of Federal Agencies
- (13) FEMA 9580.203 Fact Sheet: Debris Monitoring
- (14) Link: [Fact Sheets 201-203](#)
- (15) FEMA 9580.204 Fact Sheet: Documenting and Validating Hazardous Trees, Limbs, and Stumps
- (16) Link: [FEMA online independent study \(IS\) course IS 632: Introduction to Debris Operations](#)
- (17) Link: [FEMA online independent study \(IS\) course IS 558: Public Works and Disaster Recovery](#)
- (18) FEMA instructor led course, management level, MGT-460 Planning for Disaster Debris Management

[Click here to return to relevant action item in document](#)

## **Appendix D - Case studies for EJ modification**

Trash from the E 91st St Marine Transfer Station is under a 20-30 year contract to burn 800,000 tons/year of Manhattan trash in Niagara Falls, NY and Chester, PA, impacting EJ communities worse than any other possible course of action. This must be dealt with somehow, so that this terrible environmental racism problem isn’t left ignored for the next 1-2 decades that remain on this contract. The Covanta incinerator in Chester, PA is the largest in the nation with the fewest pollution controls and sits in a community famous for being one of the worst cases of environmental racism in the U.S. (some say THE worst). Promised trains instead of trucks, they now get both as these rail boxes are brought by train through many EJ communities and through Chester to Delaware before they’re put on trucks and trucked back into Chester. Covanta Niagara is the 3rd oldest incinerator in the nation and once it closes, that half of the waste will end up heading to Chester. The incinerator in Chester is one of five circling Philadelphia, in the nation’s worst cluster of incinerators, contributing to the city and region’s top ten status in asthma and cancer. These five incinerators are among the 7 largest industrial air polluters in the Philly area. Philly is the poorest largest city in the nation. New Yorkers have a

responsibility to undo the EJ damage caused by the decision to attempt to address equity in NYC's distribution of transfer stations by opening the E. 91st St Marine Transfer Station with Covanta holding the 2-3 decade contract.

[\(Click here to return to relevant action item in document\)](#)

## **Appendix E - Additional Notes**

Page 2:

- Data on exports should be split into what was combusted vs. landfilled.
- The plan should incorporate the latest data, but only goes through 2018? Data for 2020 is available on DEC's website and 2021, if not 2022, data should be in-hand from annual reports from waste facilities.
- Explain why industrial waste recycling dropped dramatically from 2016-2018.
- Make a chart of just MSW and how much is recycled, landfilled, incinerated, exported for landfilling, or exported for incineration.
- Is land application of "biosolids" being counted as recycling? Is glass or other waste used as alternative daily cover material at landfills counted as recycling? Are materials put in recycling bins and sent to a MRF, but not actually recycled, counted as recycling? Please clarify.

Page 4:

- The goal to reduce landfilling by 85% by 2050 fails to address the need to eliminate incineration even sooner, due to the greater climate, health, and environmental impacts of incineration (plus the fact that all of the state's 10 incinerators are reaching their end of life and will largely not be around in 2030, no less 2050). It also does not address the need to end New York's status as the nation's largest waste exporter.

## **Introduction**

Page 5:

- Discussion of "diverting waste from landfills" fails to address diverting from incineration at a higher priority, or a priority at all.

Page 7:

- “Instead of disposal and combustion” language implies that combustion is not disposal. Incineration is destruction of materials (not “recovery”) and constitutes disposal.

## **Background on Waste Management in New York State**

Page 13:

- “the MSW recycling rate remained relatively stable and even dipping slightly in 2007 and 2008.” – this is a typo and should say 2017 and 2018

Page 24:

- The term “water resource recovery facilities (WRRFs)” is a public relations term for wastewater treatment plants, which itself is a sanitized term for what we used to call sewage treatment plants or publicly owned treatment works. This plan should not be using marketing terms for waste facilities. Please replace uses of “water resource recovery facilities (WRRFs)” with “wastewater treatment plants” or “WWTP.”
- The plan states that “Biosolids are nutrient-rich organic materials that can be recycled and utilized as a soil amendment when properly treated and processed.” In fact, this treatment does not destroy metals, pharmaceuticals, PFAS, radioactive isotopes, dioxins/furans, or many other contaminants. It’s unsafe to be marketing sewage sludge for land application.
- The term “biosolids” is literally the winner of a public relations contest to rename sewage sludge to make it seem more palatable to the public. Again, it’s inappropriate for the state to be serving as the marketing wing of the sewage sludge industry. See <https://www.ejnet.org/sludge/sludge.html> for a copy of Chapter 8 of the book “Toxic Sludge is Good for You! – Lies Damn Lies and the Public Relations Industry,” which documents the story behind the “biosolids” term.
- The plan goes on to say: “Biosolids treatment and quality standards have been developed to promote the safe use of this material. Public health and the environment are protected by controlling pollutant limits and reducing the pathogenic content of the material that is beneficially used.” Only about eight toxic metals are required to be tested in sewage sludge, with acceptable limits weaker than many other countries’ compost quality standards. Hundreds of thousands of chemicals are in industrial use and in products that end up down the drain at some point. Efforts to reduce pathogenic content are also inadequate as pathogens have been shown to be able to regrow in sewage sludge, making it unsafe for land application. These statements are scientifically unsupported and should be removed from the plan.

Page 25:

- “DEC supports the beneficial use of biosolids” – see above comments and other comments on this topic, and rewrite this plan to reverse DEC’s support for land applying sewage sludge. The state of Maine recently banned the practice due to permanent contamination of farm fields with PFAS.

## **ISSUES, CHALLENGES, AND OPPORTUNITIES**

Page 31:

- When accounting for climate impacts from waste systems, ALL of the GHGs from incinerators must be counted. Some models ignore the “biogenic” fraction of the waste, pretending that about half of the GHGs from incinerators just don’t exist. However, this “biogenic carbon neutrality” argument has been debunked since at least 2009 by climate scientists who point out that it is double counting because climate models already account for the fact that trees and other plants regrow. It is improper to assume that any additional regrowth of plants and trees occurs when waste is sent to an incinerator instead of a landfill, and to provide a credit to one and not the other. Properly conducted life cycle analyses have demonstrated that incineration is worse for the climate than landfills, even when accounting for the short-term (20-year) impacts of methane. DEC ought to review this research and acknowledge it in this plan by prioritizing the closure of incinerators for climate (as well as public health) reasons, since they are worse than landfills for both.
- Please provide a comparison per ton of waste, so that the difference is clear between the options, and isn’t making landfills look worse just because there are more of them.
- The plan expresses concern about “exporting of waste to landfills in other states” without mention of the very serious environmental justice problem associated with New York’s exporting of waste to *incinerators* in other states.

Page 33:

- The plan refers to “non-fiber plastics.” Is this a mistake? Are there fiber plastics?

Page 34:

- The plan describes how “diverting a year’s worth of textiles from disposal is equal to removing 7.3 million cars off the road.” Please dispense with these bad analogies, as they are only about GHGs and there is more to health and environmental impacts than GHG emissions.

Page 35:

- Regarding “equity issues,” the plan states that “communities that have been disproportionately impacted must be supported and able to meaningfully participate in the decision-making process about waste and sustainable materials management that will help communities thrive.” This “equity” framing is the “poison people equally” doctrine in nicer language. Environmental



justice was never about equal distribution of pollution. The “meaningful participation” mantra in environmental justice is also inadequate as DEC still issues permits to pollute no matter how much a community does not want or need a facility. “Meaningful” needs to mean that the community has the power to decide, not just to speak at a hearing and get ignored. This plan should call for strong environmental justice laws in New York to require DEC to say “no” to a waste facility permit if the impacts would disproportionately fall on racial minorities. Title VI of the Civil Rights Act requires that the state not take any action that would disproportionately impact racial minorities, and this would codify the practice. Short of passing such a state law, the New York Attorney General should be asked to clarify that the DEC’s obligations under the Civil Rights Act already include the power to deny permits for polluters in EJ communities.

Pages 37-38:

- The plan admits that there is PFAS in sewage sludge, but aims to research to find an acceptable amount that can be dumped on farm fields. For a persistent pollutant that will concentrate over time, this is especially inappropriate and should be removed.

## **VALUES AND VISION**

Page 39:

- Values should include:
  - Adopting the internationally peer-reviewed definition of Zero Waste and the Zero Waste Hierarchy as codified by the Zero Waste International Alliance at [Zero Waste Hierarchy of Highest and Best Use 8.0](#)
  - The Principles of Environmental Justice as drafted at the First National People of Color Environmental Leadership Summit in 1991, available at [The Principles of Environmental Justice \(EJ\)](#)
  - Ending New York State’s decades-long status as the nation’s #1 waste exporter. New York must manage its fair share of waste, which would be “equity.” “Justice” would be making up for decades of exporting to states like Pennsylvania (the nation’s largest waste importer for decades) by providing additional capacity for states that have received New York’s waste for many years. However, equity will be a nice start.
  - Minimize harm by:
    - Ending incineration in all forms as soon as possible, including in cement and aggregate kilns.
    - Banning new incinerators, including so-called “chemical recycling,” pyrolysis, gasification, and other waste-to-fuels schemes.
    - Managing landfills better (including banning clean compostables from landfilling)
    - Forbid the use of contaminated waste streams like ash and sewage sludge from being “beneficially used” in any form.

Page 40:

- The goal of reducing landfilling 85% by 2050 needs to include a much sooner (at most 2030) elimination of incineration, and needs to have 2030 and 2040 targets, not just a 2050 goal.
- The “circular” vision needs to recognize that toxic chemicals contaminate the “circle” and that until toxic chemicals use is ended, circles are dangerous when it comes to plastics, sewage sludge, ash/slag, etc.

### **The Future of Materials Management in New York State**

Page 43:

- The plan states that “[f]or solid waste management, methane emissions from landfills are the largest source of GHG emissions in New York State.” This is misleading because incinerators are worse per ton of waste disposed, but there are more than twice as many landfills. It ought to be explained that while landfills are collectively worse because there are more of them and they take in more waste, they do not release as much as incinerators do per ton disposed

### **Table 7 (p.78)**

- The state population is only expected to increase 2.7% between 2023 and 2050? Is this realistic given climate refugees?
- If the population barely changes, why is the discard (recycling/composting) stream growing so much in that time? This is projecting no source reduction or reuse, and a massive consumption increase? How is the waste per capita dropping so much when waste is a constant and population is nearly constant?

Page 79:

- “Waste management accounts for 12% of the GHG emissions in New York State, on par with the transportation sector.” Note that this is undercounted because of incorrect accounting for incinerator emissions.

Page 143: “Appendix C: New York State Waste Generation and Waste Imported”

- Exports should have a larger focus than imports given New York’s status as #1 waste exporter for at least three decades. That should be reflected in the title of this appendix and in the data presented.
- Why does the data end in 2018? 2020 data is online and 2021 or 2022 data should be in-hand.
- This data should be provided in spreadsheets.

Page 200: Figure E.1.

- It’s misleading to have the export arrow pointing to New England when it should be pointing in the direction where exports predominantly go: toward Pennsylvania.

Page 203:

- “New Jersey, Ohio, and Virginia receive approximately 7%, 6%, and 5%, respectively.” The math on this does not work. NJ imports much less than OH and VA, but is a higher percentage?

Page 214:

- “The Long Island Landfill Law restricts the types of waste that can be landfilled on Long Island and, for the most part, prohibits the disposal of MSW.” This is incorrect. Incineration IS disposal, and there are four incinerators burning Long Island MSW.