

**Comments for the Public Record
Department of Environmental Protection
Maine Materials Management Plan
Solid Waste Management and Recycling Plan 2019 Update
Jacquelyn Elliott | September 1, 2023**

Thank you for the opportunity to submit comments for the public record in conclusion of the recent series of meetings held regionally across the state seeking public input as the Department of Environmental Protection (Department) pursues an update to the Solid Waste Management and Recycling Plan published in 2019 as specified by statute: 38 M.R.S. § 2122. Members of the public showed up consistently in person and remotely throughout the scheduled meetings. The Orono meeting included a considerable public in-person presence and online attendance representing the Department, including Commissioner Loyzim. I appreciated the **opportunity to join remotely. That option secured participation for those who would otherwise be excluded.** As someone who was able to attend all of these meetings remotely, I will share my observations of major takeaways from these meetings, as well as recommendations. I encourage you to read these comments in full, and **please take particular note of the considerations, conclusions and specifics to be addressed.**

Observations and Overview:

Members of the public (including myself) recommend that in the future, the Department use more aggressive promotion for such meetings, as well as provide a time frame that would allow participation for people who work during the day. The importance of including meaningful involvement of the public was emphasized because **residents bear the impacts from the choices and policies employed by the Department** in managing resources. **Policies affect public health; the welfare of the natural environment and resources; and quality of life** particularly for those living nearby facilities. However, these **decisions affect all Mainers.** The public continues to strongly advocate for **equity in the benefits and burdens from policy decisions and outcomes.**

Also in attendance were municipal employees charged with infrastructure development, collection, transfer and disposal of the waste generated within their jurisdictions. They frequently acknowledged frustration with perceived inconsistencies in regulations and requirements to meet the existing law. A **lack of adequate infrastructure** was cited as well as the **need for increased opportunities for diversion of waste and successful recycling** outcomes. **Poor public participation** in existing programs was noted. The **costs of managing materials** framed the conversations. Though those costs are considerable, they **do not factor in** the substantial **costs to public health and for adverse environmental impacts.** The **confusion around recycling labeling** was identified with the suggestion that “truth in recycling” symbols and packaging would be useful to redeem truly recyclable resources from the disposal stream and would contribute to

the reduction of contamination adding value to end products. The potential for recycling rates to increase would extend disposal capacity.

Presenters from the public shared information about various **efforts to remove organics**¹ from the disposal stream and demonstrated initiative and entrepreneurship. It was recognized that **organics can contribute up to a third of the volume of what is disposed**. Wasted food and clean yard debris resources **when landfilled, are a major source of methane emissions contributing significantly to greenhouse gas (GHG) pollution and climate**² **disruption**. Properly collected and **directed to beneficial reuse**, they can **address human hunger or provide a food source for livestock**. Appropriate processing can repurpose these resources as **useful soil amendments restoring soil health**. Mark King, who leads the **composting and organics program**, outlined the Department's efforts. He provided an overview and shared information of his research that reveals what materials can actually be successfully composted with items currently promoted as compostable. Packaging presents a challenge and It was evident that **support is needed to further develop infrastructure and increase participation** and would include **educational and networking efforts**. There was **inquiry** from the public about **whether Maine would consider legislation modeled after a law passed in Vermont**³ **mandating removal of organics** from the waste stream.

Regional Approach:

A clear message in every regional meeting was the **need for shared infrastructure** to increase successful results and to **find the connections** to assist communities with **education and mutual efforts** that **increase diversion and improve recycling** outcomes. **Recognizing that waste is a choice, members of the public promoted Zero Waste goals and actions**⁴ that focus on **rethinking materials handling and prioritize efforts to preserve valuable resources, reduce the waste stream requiring disposal, and promote local control and the economy**. An important take-away is that **communities want the State**⁵ **to actively participate in finding needed solutions**. It is important to realize that **many of the pieces to improve outcomes are already in place**. Despite assertions to the contrary, **waste requiring disposal**⁶ **is not inevitable**. Maine has been a **leader** with a very effective bottle program and is making progress with extended

¹ EPA Sustainable Management of Food: <https://www.epa.gov/sustainable-management-food>

² EPA Landfill Methane Outreach Program: <https://www.epa.gov/lmop/basic-information-about-landfill-gas>

³ Mugica, Yermina, October 24, 2017, NRDC, *Food to the Rescue: Vermont's Universal Recycling Law*: <https://www.nrdc.org/resources/food-rescue-vermonts-universal-recycling-law>

⁴ What is Zero Waste – A Guide To Resource Recovery and Conservations: <https://www.zerowaste.com/blog/what-is-zero-waste-a-guide-to-resource-recovery-and-conservation/>

⁵ Millstein, Lincoln, August 12, 2023, The Quietside Journal, *Acadia area towns ask governor for help on regional waste disposal*: https://theqsjournal.substack.com/p/new-state-law-bolsters-workforce?utm_source=substack&utm_medium=email

⁶ Budris, Kevin, July 31, 2023, *The False Choice Standing in the Way of Zero Waste*: <https://just-zero.org/our-stories/explainer/false-choice-in-the-way-of-zero-waste/>

producer responsibility ([EPR](#)⁷). Much of what requires disposal involves unnecessary packaging materials. Requiring producers and users of materials to be responsible for the costs associated with end-of-life management has been shown to initiate rethinking of packaging, and has decreased the volume of what requires disposal. Such efforts have resulted in improvements to packaging with materials that are recyclable. These **programs** can **generate funds** for supporting these and other initiatives.

It was discussed that one of the challenges around **infrastructure** development is to **meet the needs of the regional participants**. Urban needs and rural needs differ. Matters of **justice and equity must be accounted for and accommodated**. Hindrances to participation in programs and options due to location, culture, language, economic status, etc., must be addressed. In some courts, it is being successfully argued, that there is an **inherent right to a healthy [environment](#)**⁸ for everyone that must be **applied to decisions**.

For-profit waste industry representatives were present at some meetings. There was reference to regional solutions for materials management from both industry representatives and the public. However, some in the **public** promoted a different view of the **concept of regional**. For them, the focus was to **address the shared needs of an identified region of communities who could come together cooperatively to develop suitable infrastructure for waste reduction, diversion, collection, recycling, processing and disposal solutions**. **Local control and accountability** for operations is considered a **critical** aspect of that approach. There was interest to increase opportunities for refill and reuse; shared use; and repair rather than replace. Attendees shared examples of what is already occurring in those spaces. It was recognized that such approaches **promote community and fit the predominant Maine ethos of thrift and ingenuity**. **Effective resource management will move beyond frugality to reduce the endless extraction and waste of finite resources and move to conservation and efficient use** in the context of sustainability. It was suggested that the **Department conduct an economic study to better understand the existing dynamics**.

A representative from the for-profit industry sector promoted regional processing approaches before landfilling. From an **industry, for-profit perspective, regional includes importation of waste streams from beyond Maine's borders to achieve economies of scale and meet the demands to return [profits](#)**⁹ to executives and shareholders. That angle **incentivizes increased generation of waste, rather than reduction**. Waste reduction should be the primary goal of any sustainable approach to resource conservation and management. The **for-profit model promotes waste as a commodity and works counter to efforts that reduce waste generation** and preserve disposal capacity.

⁷ Maine Department of Environmental Protection, *Extended Producer Responsibility Program for Packaging*:

<https://www.maine.gov/dep/waste/recycle/epr.html>

⁸ Drew, Micah; Eggert, Amamda, Montana Free Press, Flathead Beacon, August 17, 2023, 'This changes everything': Experts respond to Held v. Montana climate ruling:

<https://montanafreepress.org/2023/08/17/this-changes-everything-experts-respond-to-landmark-youth-climate-ruling/>

⁹ April 27, 2023, VermontBiz, *Casella Waste announces 1Q 2023 results, revenues up over 12%*:

<https://vermontbiz.com/news/2023/april/27/casella-waste-announces-1q-2023-results-revenues-over-12>

Public comment **introduced the view the State’s ownership of Juniper Ridge Landfill (JRL) would be better served, if the State exercised its [Market Participator](#)¹⁰ position and utilized JRL’s disposal capacity for Maine-generated waste** as envisioned with the establishing [legislation](#)¹¹. Industry representatives offered that there are new materials that require processing. The inference being that communities could not successfully handle them. It was additionally noted that the infrastructure is old and outdated with an inability to deal with Maine waste and comments included an admonition that Maine does not want to be an exporter of waste. **The public agrees that burdens of irresponsible and poor materials management should not be shifted to communities in or out of the state.**

Another **industry** representative introduced their **view of funding infrastructure**. It was **suggested that funding is not the problem**. But rather, **regulation is the problem**. It was further advised that funding has to be attractive and that municipalities do not want to take the risk, but private companies will take the risk. It should be acknowledged that in the matter of funding, **private, for-profit companies do not lack access to public dollars to finance their operations**. The **Finance Authority of Maine (FAME) loaned [Casella \\$25 million](#)**¹² in the arrangements that eventuated in payment to Georgia Pacific (GP) for purchase of their Old Town landfill that is now JRL. Industry attendees went on to allege that landfills are the foundation of the waste management hierarchy and private industry provides useful service centers.

Framing the Issue Honestly:

At the initial meeting in Machias, I raised the issue of the obvious elephant in the room: **Maine appears to be heavily influenced legislatively, regulatorily, and economically around waste management by the mega, for-profit operations of Casella Waste Systems (Casella), operator and expander of JRL; and Waste Management (WM), owner and expander of the Crossroads Landfill in Norridgewock.** It can be argued that industry pressures have worked against the public interest and have likely helped precipitate the current situation of limited choice and ever-expanding landfills.

“The significant increases in amounts of CDD being landfilled, and recent applications to expand JRL and allow increasing quantities of unprocessed MSW as acceptable waste have highlighted the need for revisiting the provisions that allow processed out-of-state waste into the state-owned landfill and greater [statutory](#)¹³ specificity as to the appropriate use of state landfill capacity.” 2019 Maine Materials Management Plan

¹⁰ Maine Office of Policy and Legal Analyses, *Final Report of the Joint Standing Committee on Natural Resources Interim Study of Solid Waste Issues, 2010:*
https://digitalmaine.com/cgi/viewcontent.cgi?article=1043&context=opla_docs

¹¹ May 30, 2003, 121st Maine Legislature LD 1626/H.P. 1205 *Resolve, To Authorize the State To Purchase a Landfill in the City of Old Town:* <http://lfdc.mainelegislature.org/Open/LDs/121/121-LD-1626.pdf>

¹² Levitsky, Stan; Schroeder, Paul, *Dump Documents Dispatches, #7:*
<https://penbay.org/waste/landfills/dwme/DumpDocumentsDispatch-combined-V4-pdf.pdf>

¹³ January 2019, *Maine Materials Management Plan*, Pp. 9, 10:
[Maine Materials Management Plan: State Solid Waste Management and Recycling Plan 2019 Update](#)

The issue of [near-monopolization](#)¹⁴ has been consistently brought forth from the early 2000s, by academics, attorneys general, and members of the public. The issue of regulating JRL as a public utility is currently being raised by legislators and has received scrutiny in the past. The status of the State as owner and regulator of JRL, presents a situation pregnant with opportunities for conflicts of interests specifically as it relates to operations and regulation. The **State is contracted long-term with Casella**¹⁵ who operates the landfill. The **Operating Services Agreement (OSA)**¹⁶ has been controversial from the outset. The original agreement put into effect February 5, 2004 has been **amended twice outside**¹⁷ of the public's knowledge and participation. JRL's neighbors have endured hazardous and life-disrupting impacts as the landfill has continued to expand its footprint. The operations, licensing and expansion processes, and outcomes for the landfill are **demonstrations of on-going environmental injustice and abuse of citizens' rights**. [Environmental justice](#)¹⁸ must hold a leading position to develop policy and influence decisions going forward and **include consideration of cumulative, synergistic, and compounding impacts on public health and the environment**.

There was discussion of construction and demolition debris (CDD) and speculation as to the approach and benefits of deconstruction. [Deconstruction](#)¹⁹ creates jobs, generates revenue from recycling, and avoids disposal costs. It was stated by the public, that rural Maine has a particular propensity for reuse of materials. The **CDD portion of the waste stream segues to** the topic of waste water treatment plants (WWTPs) and industrial **sludge management**. Casella generates profits from the sludge it landfills at JRL. Earlier this year, there was a **potential public health emergency precipitated** when **Casella contended that they could not landfill sludge**²⁰ **from Maine communities they are contracted with for disposal**. Sludge was piling up at treatment facilities and **Casella drastically increased their hauling fees for those towns** and began **trucking sludge to New Brunswick, Canada**. The sludge issue was **concluded unsatisfactorily**²¹ when it appeared Casella pressured the Department and the Legislature to roll back regulation that

¹⁴ Townsend, Ralph. E.; Ackerman, Francis, December 31, 2002, *An Analysis of Competition in Collection and Disposal of solid Waste in Maine*:

https://www.maine.gov/ag/dynld/documents/Solid_Waste_Report.pdf

¹⁵ Rosengren, Cole, April 24, 2023, Waste Dive, *Casella Waste to acquire \$525M worth of GGFL assets in 3 states*:

<https://www.wastedive.com/news/casella-waste-gfl-assets-pennsylvania-maryland-delaware/648382/>

¹⁶ <https://www.maine.gov/dafs/bgs/maines-state-owned-landfills/juniper-ridge-landfill>

¹⁷ Levitsky, Stan; Schroeder, Paul, Dump Documents Dispatches #6, #17:

<https://penbay.org/waste/landfills/dwme/DumpDocumentsDispatch-combined-V4-pdf.pdf>

¹⁸ Maine 130th Legislature, LD 2018 enacted 38 MRSA §349-C:

<https://legislature.maine.gov/bills/getPDF.asp?paper=HP1500&item=6&snum=130>

¹⁹ EPA, *Sustainable Management of Construction and Demolition Materials*:

<https://www.epa.gov/smm/sustainable-management-construction-and-demolition-materials>

²⁰ Leigh, Vivien, August 1, 2023, News Center Maine, *Maine's sludge crisis is over for the short term*:

<https://www.newscentermaine.com/article/tech/science/environment/maines-sludge-crisis-is-over-for-the-short-term-pfas-environment-maine/97-aa5ff193-9596-4d67-965a-f81dd1a6d120>

²¹ Overton, Penelope, August 7, 2023, Portland Press Herald, *Maine sludge crisis is over – for 2 years, at least*:

<https://www.pressherald.com/2023/08/07/maine-sludge-crisis-is-over-for-now/>

beginning in February 2023, would have begun to staunch the flow of imported over-sized bulky waste (OBW) being landfilled at JRL. **Casella got a pass for an additional two years to import and bury 25,000 tons each year of OBW** mostly from Massachusetts. Casella previously requested **permission from the Department to landfill 85,000²² tons of OBW in 2023**. Massachusetts no longer allows CDD to be landfilled in the state. OBW is a subset of the CDD that is imported and processed at the Lewiston ReSource Waste Systems facility, previously owned by Casella. OBW from ReSource is used for Casella's operations at JRL. Casella purports they need this imported **OBW to stabilize the wet sludge**, though that is **not an industry-promoted method²³**.

The Current Crisis:

Following the "sludge crisis" in February and March, in May, there was a **fire²⁴ at JRL of unknown origin** with little validation for the extent of possible damage to the landfill liner. Nearby residents were **exposed to toxic fumes and debris** generated from the fire. There is **no evidence of increased safety measures** having been put in place despite requests from residents to the Department and local officials.. **Residents want a warning system that will alert them when there is an event at the landfill.**

The **Penobscot Energy Recovery Company (PERC) incinerator** in Orrington is **shuttered²⁵** and facing the auction block as trash lingers (as of latest reports) on the tipping floor. The **ecomaine** incinerator on the outskirts of Portland has **twice within a month spewed purple smoke²⁶** from its stack alarming the public. The **cause is under investigation and no report** has yet been issued to the public. In **2014 ecomaine was cited** among the Dirty Dozen trash incinerators for **releasing nearly 200 pounds of lead²⁷** emissions that year. It has been determined there is **no safe level²⁸ for lead in the blood**. **ecomaine is located less than two miles from**

²² 2023 Annual Oversized Bulky Waste (OBW) Request Form for Juniper Ridge Landfill:
https://www.maine.gov/dep/waste/juniperridge/documents/2023_01_26%20JRL%20OBW%20Annual%20Request%20Form%202023%20Final.pdf

²³ IWA Publishing, *Sludge Drying Overview – Treatment Methods and Applications*:
<https://www.iwapublishing.com/news/sludge-drying-overview-treatment-methods-and-applications>

²⁴ Royzman, Valerie, May 17, 2023, Bangor Daily News, *Cause of Juniper Ridge Landfill fire may never be known, Maine DEP says*:
https://www.bangordailynews.com/2023/05/17/news/bangor/juniper-ridge-landfill-fire-cause-unknown-n6hjn1me0n/?mc_cid=35a3d1a1a8&mc_eid=6bb20b78b3

²⁵ Harrison, Judy, June 22, 2023, Bangor Daily News, *Orrington trash plant shuts down as it prepares for auction*:
<https://www.bangordailynews.com/2023/06/22/news/bangor/perc-goes-to-auction-joam40zk0w/>

²⁶ Graham, Gilian, August 4, 2023, Portland Press Herald, *Purple smoke returns Friday to skies above Portland waste plant*: <https://finance.yahoo.com/news/purple-smoke-returns-friday-skies-163100935.html?guccounter=1>

²⁷ Baptista, Ana Isabel, PhD; Perovich, Adrienne, MPA; Sachs, Amanda; Yulsman, Anna; Jordan, Brandon; Rot, Caludia; Capuno, Kevin, May 2019, The New School, Tishman Environment and Design Center, *U.S. Municipal Solid Waste Incinerators: An Industry in Decline* (pp. 40):
https://www.no-burn.org/wp-content/uploads/2021/11/CR_GaiaReportFinal_05.21.pdf

²⁸ Centers for Disease Control and Prevention, Childhood Lead Poisoning Prevention, *Health Effects of Lead Exposure*:

Environmental Justice communities, according to the EPA’s Environmental Justice Screening and Mapping Tool. What is evident, is that the purple plume made the pollution that is usually invisible, visible.

The **Municipal Review Committee (MRC) facility**²⁹ in Hampden is **contracted long-term with 115 Maine towns for trash disposal**. After operating less than a year, it is attempting to reopen after closing in 2020 due to equipment problems and financial woes. The reopening process could take up to two years. Meanwhile, **waste from the member towns is being diverted to JRL and Crossroads landfills for disposal**. The **least desirable disposal option on Maine’s waste hierarchy**. The same technology previously utilized, is slated to be re-employed with promises of new advancements. This **proposed reopening plan raises doubts for many citizens as these technologies are having problems**³⁰ **operating safely and successfully to scale and have consumed many public dollars in the process**.

Concerns have also been raised by citizens with regard to the **planned MRC operations** that there **may be efforts to utilize what is known as “Advanced or Chemical Recycling.”** This is **not recycling, but rather processing plastics**³¹ to create products primarily **burned for fuel**. The processes involved raise a **plethora of issues of hazardous environmental and health impacts for the workers and neighbors of the facilities**. **Citizens have prompted legislation**³² **that will be considered in the upcoming session to put regulation around any proposed Advanced Recycling operations in Maine**.

At one of the meetings, the **Department presented WTE (waste-to-energy) incineration as being highly regulated**³³ **and controlled**. I countered that perspective noting that **WTE has wide-ranging hazardous environmental impacts**. Toxic emissions are dispersed locally as well as at great distances and only a **few emissions are required to have continuous emissions monitoring (CEM)**. **Dangerous emissions of dioxins, lead, mercury and other toxic metals are**

<https://www.cdc.gov/nceh/lead/prevention/health-effects.htm#:~:text=No%20safe%20blood%20lead%20level,pay%20attention%2C%20and%20academic%20achievement>

²⁹ Loftus, Sawyer, March 1, 2023, Bangor Daily News, *It was going to revolutionize trash disposal. Instead, Maine is landfilling more than ever:*

<https://www.bangordailynews.com/2023/03/01/mainefocus/hampden-trash-plant-delayed-recycling-goals-joam40zk0w/>

³⁰ Bruggers, James, June 16, 2023, Inside Climate News, *Inside Indiana’s ‘Advanced’ Plastics Recycling Plant: Dangerous Vapors, Oil Spills and Life-Threatening Fires:*

https://insideclimatenews.org/news/16062023/indiana-advanced-plastics-recycling-vapors-spills-fires/?utm_source=InsideClimate+News&utm_campaign=f1e9cc4ef3-EMAIL_CAMPAIGN_2023_06_17_01_00&utm_medium=email&utm_term=0_29c928ffb5-f1e9cc4ef3-329894814

³¹ Brock, Joe; Volcovici, Valerie; Geddie, John, July 29, 2021, Reuters, *The Recycling Myth:*

<https://www.reuters.com/investigates/special-report/environment-plastic-oil-recycling/>

³² Maine 131st Legislature, April 12, 2023, LD 1660, *An Act to Provide That Advanced Recycling Facilities Are Subject to Solid Waste Regulation and That Advanced Recycling Does Not Constitute Recycling:*

<https://legislature.maine.gov/bills/getPDF.asp?paper=SP0665&item=1&snum=131>

³³ Budris, Kevin, May 13, 2021, Conservation Law Foundation, *Can We Make Waste Incinerators Safe? Yes, By Shutting Them All Down; Busting the myth of emissions “limits” for trash burners:*

<https://www.clf.org/blog/incinerator-air-emissions/>

subject only to periodic testing and are based on averages and extrapolations usually obtained during controlled burns. There is **no real-time, continuous measurement** of these very toxic emissions **during operations.** Periods of **start-up, shut-down, and malfunction are exempt from regulation of emissions limits.** These are the **times** recognized as **producing the greatest amounts of dangerous pollution.**

WTE also requires landfilling of the **intensely toxic fly ash** mixed with the bottom ash. **Particulates** of the toxic ash are **dispersed during handling and transportation, and are released from the landfill.** Toxic emissions associated with WTE incinerators can negatively impact the health of workers and neighbors. **WTE contributes to climate changing GHG emissions at rates comparable to coal-fired power plants** when all factors are considered. **Carbon**³⁴ emissions will vary greatly depending on the specific composition of the waste being incinerated. The methods used to calculate CO₂ emissions provide loopholes and therefore do not reflect the actual CO₂ and other GHG emissions released to the environment. Even with calculations as formulated, incineration is second to coal for carbon emissions. **WTE incineration pollutes, wastes energy and competes**³⁵ **for resources that could be better employed toward recycling efforts.**

There was **acknowledgement of the forever-toxic class of chemicals known as PFAS**³⁶ (per- and polyfluoroalkyl substances) that contaminate the waste stream. These toxics are ubiquitous in the environment and are harmful to human health. Everyday consumer and household items, WWTP and industrial sludges, all **contribute to the toxic load in leachate** produced when precipitation percolates through a landfill. Leachate can leak from landfills and is **discharged**³⁷ to waterways before PFAS and other toxics are removed, threatening ground and surface water. **Millions of gallons of insufficiently treated leachate from JRL have been discharged into the Penobscot River, Sacred Relative of the Penobscot Indian Nation.** Our Penobscot Indian neighbors are **unable to engage in the subsistence practices of their culture without risking their health**³⁸. This **speaks to the overall injustice of Maine’s current approach to handling waste materials.**

In response to the identified hazards posed by PFAS, the Department is investigating methods to remove these toxics from sludge and leachate. The public believes, that ultimately the **costs**³⁹ **for remediation and mitigation of these toxic chemicals, must be borne by the**

³⁴ Ballinger, Ann; Shanks, William; Duffield, Laura; Sherrington, Dr. Chris, March 9, 2021, eunomia, *Greenhouse Gas and Air Quality Impacts of Incineration and Landfill*: <https://www.eunomia.co.uk/reports-tools/greenhouse-gas-and-air-quality-impacts-of-incineration-and-landfill/>

³⁵ Mike Ewall, Founder Energy Justice Network, “If the same materials burned in trash incinerators were recycled or composted, they would save 3–5 times more energy than incinerators can make from burning them . . .”: www.energyjustice.net/incineration/

³⁶ EPA, PFAS Explained, <https://www.epa.gov/pfas/pfas-explained>

³⁷ Sunlight Media Collective, *Water Ceremony against leachate pollution of Penobscot River*: <https://vimeo.com/523344387>

³⁸ Penobscot Indian nation, Maine, January 2021, *ATSDR Reviews Anadromous Fish from the Penobscot River*: https://www.atsdr.cdc.gov/HAC/pha/PenobscotRiver/Factsheet_Reviews_Fish-508.pdf

³⁹ Harrison, Judy, May 22, 2022, Bangor Daily News, *Hundreds of lawsuits expected over forever chemicals after Erin Brockovich visits Maine*:

producers and those who knowingly use them in their products. Those handling PFAS-containing wastes, must protect public health and the environment from PFAS pollution attendant with those operations. Private, for-profit entities thus engaged, must assume the expense of that prevention as a cost of doing business. **Tax dollars should not provide the final restitution** for any of these costs. These approaches will assist to diminish toxic releases to the environment and increase the pressure to **turn off the tap of unnecessary uses of PFAS** in products.

On-site removal of PFAS from sludge and leachate; and their destruction, if possible, must be the preferred method utilized because **transporting these toxics increases the potential for dispersion, exposure, and contamination.** **PFAS should be regulated as a class⁴⁰ of chemicals,** not one-off. Science is indicating there **may be no safe level⁴¹ for exposure to PFAS.**

Maine is facing the nightmare **realities⁴²** of PFAS pollution of our water and lands and our people, likely from what was the legal practice of spreading sludges on our farmlands for fertilizer. **Maine citizens are recording some of the highest levels of PFAS yet found in blood plasma.** **Maine has been a leader⁴³ banning further land application of sludge and prohibiting the sale of soil products amended with sludge containing PFAS.** Of note, it was recently **stated⁴⁴** publicly by Howard Carter, Superintendent of Saco Water Resources Recover Department, that Saco is shipping WWTP sludge to New Hampshire to be land applied. The complications around managing sludge are considerable, but the solution is not to impose the threats from improper handling on communities in New Hampshire or elsewhere. However, progress continues in the right direction. **Legislation⁴⁵** has **passed in an effort to protect Maine consumers from unnecessary exposure to**

<https://bangordailynews.com/2022/05/22/news/hundreds-of-lawsuits-expected-over-forever-chemicals-after-erin-brockovich-visits-maine/>

⁴⁰ Kwiatkowski, Carol F.; Andrews, David O.; Birnbaum, Linda S.; Bruton, Thomas A.; DeWitt, Jamie C.; Knappe, Detlef R.U.; Maffini, Maricel V.; Miller, Mark F.; Pelch, Katherine E.; Reade, Anna; Soehi, Anna; Trier, Xenia; Venier, Marta; Wagner, Charlotte C.; Wang, Zhanyun; Blum, Arlene, June 30, 2020, ACS Publications, *Scientific Basis for Managing PFAS as a Chemical Class*:

<https://pubs.acs.org/doi/10.1021/acs.estlett.0c00255>

⁴¹ June 15, 2022, *EPA Announces New Drinking Water Health Advisories for PFAS Chemicals, \$1 Billion in Bipartisan Infrastructure Law Funding to Strengthen Health Protections*:

<https://www.epa.gov/newsreleases/epa-announces-new-drinking-water-health-advisories-pfas-chemicals-1-billion-bipartisan>

⁴² Bangor Daily News Editorial Board, April 4, 2023, *Chemical companies should bear the costs of PFAS contamination*:

<https://www.bangordailynews.com/2023/04/04/opinion/editorials/chemical-companies-should-bear-the-costs-of-pfas-contamination/>

⁴³ Staff, May 1, 2022, *The Republican Journal, Maine is the first in the nation to ban spreading of PFAS sludge and compost*:

https://waldo.villagesoup.com/news/maine-is-first-in-the-nation-to-ban-spreading-of-pfas-sludge-and-compost/article_80694cfe-b91f-52ea-894d-edccc44a255.html

⁴⁴ August, 24, 2023, *Maine Public Radio, Maine Calling, PFAS in Maine's drinking water and aquatic environments*:

<https://www.mainepublic.org/show/maine-calling/2023-08-24/pfas-in-maines-drinking-water-and-aquatic-environments>

⁴⁵ *Maine Department of Environmental Protection, PFAS in Products*:

<https://www.maine.gov/dep/spills/topics/pfas/PFAS-products/index.html>

PFAS in products sold in Maine. It is critical that these forward-moving efforts are strengthened, not weakened.

Maine must confront multiple questions around waste and resource management. During the meetings, the public lobbied for **safe, easy-to-access options for managing** the growing number of **e-batteries** and other **electronic waste**. It was voiced there is a need to plan for the **end-of-life for solar⁴⁶ panels and wind⁴⁷ turbine blades and other components** as we move to a clean and renewable energy future. It was emphasized that **surety must be provided on the front-end for the expense of decommissioning and appropriately handling materials** when they are no longer useful. It was stressed that those **costs must be assumed by producers and installers, not ratepayers and taxpayers.**

Historical Context of Materials Management in Maine:

Planning and accountability for **waste management in Maine** has inhabited a **convoluted landscape**. **Pressures⁴⁸** on the State mounted when federal law resulted in municipal landfills being closed. The two agencies planning for the waste hierarchy and goals for management have been eliminated. The **Maine Waste Management Agency Act** was **repealed** in 1995 and the **State Planning Office closed** in July, 2012. This brought changes to departmental priorities and policies and subjected planning and regulation to uncertainty. The **Department's role as regulator was complicated when given the new responsibility to collect solid waste data and provide reporting as well as direct solid waste planning. Adequate resources and staffing for carrying out these responsibilities have been lacking.**

"[The Maine State Planning Office⁴⁹](#) (SPO) was created by the Legislature in 1968 as part of Maine's Executive Department. Its mission was to help build a sustainable future for Maine's communities, businesses and residents. The State Planning Office had four core duties assigned to it by statute that included coordinating the development of the state's economy and energy resources with the conservation of its natural resources; providing technical assistance to the Governor and Legislature by undertaking special studies and plans and preparing policy alternatives; providing technical assistance to towns and regions; and conducting continuing economic analyses, including economic forecasting. The Maine State Planning Office was eliminated effective July 1, 2012."

"A brief look at its reports to the [Legislature⁵⁰](#) shows that SPO was addressing key issues that matter to Maine people, including energy planning; strategies to increase Maine's

⁴⁶ The Associated Press, Bangor Daily News, August 1, 2023, *A budding recycling industry tackles 'tsunami' of solar waste*: <https://www.bangordailynews.com/2023/08/01/news/nation/recycling-industry-solar-panel-waste/>

⁴⁷ Union of Concerned Scientists, The Equation, October 30, 2020, *Wind turbine Blades Don't Have to End Up In Landfills*: <https://blog.ucsusa.org/james-gignac/wind-turbine-blades-recycling/>

⁴⁸ Kreis, Donald Maurice, June 1993, Maine Law Review, Vol. 45, Num. 1, Article 5, *Love of Landfill: Trashing the Maine Constitution to solve a Garbage Problem*: <https://digitalcommons.maine.edu/cgi/viewcontent.cgi?article=1650&context=mlr>

⁴⁹ Digital Maine Repository, State Planning Office: https://digitalmaine.com/spo_docs/

⁵⁰ LD 446, An Act To Reestablish the State Planning Office, March 3, 2021, Testimony Pete Didisheim, Advocacy Director, Natural Resources Council of Maine:

knowledge-based economy and raise household incomes; market trends affecting housing and land use; incentives for keeping land in productive farming, fishing, and forestry; the costs of sprawl; waste management strategies; the status of old-growth forests and ecological diversity; and more.

SPO was created as part of the Executive Branch to help build a sustainable future for Maine's communities, businesses, and residents, with a primary focus on resource assessment and planning. In a state where the health of our environment and economy are so tightly connected, SPO sat at the nexus of many critical issues affecting the character of our state. As its title announced, SPO was in the business of helping Maine plan for our future."

Guiding Principles – Maine's Waste Management and Food Recovery Hierarchies

* Department of Environmental Protection 2019 Maine Materials Management Plan

*"Maine statute includes two hierarchies to be used as guiding principles in decision-making in the management of solid waste. 38 M.R.S. § 2101, Solid Waste Management Hierarchy, sets as State policy an integrated approach to solid waste management with **waste reduction as the highest priority** (emphasis mine), followed by reuse, recycling, composting, volume reduction through waste-to-energy incineration, and landfilling as the management options of last resort. 38 M.R.S. § 2101-B, the Food Recovery Hierarchy, provides additional guidance on the management of food waste within the context of the Solid Waste Management Hierarchy. It prioritizes reducing surplus food generation at the source, donating surplus food to feed hungry people, diverting food scraps for use as animal feed, composting of food scraps and diversion to waste utilization technologies to create fuels and recover energy, and finally, incineration or land disposal. **Preventing the generation of waste is at the top of Maine's Solid Waste Management Hierarchy because it provides the greatest environmental benefits, including:** (emphasis mine)*

- *efficient use of material and energy resources,*
- *the reduction of negative environmental impacts caused by virgin materials extraction, and*
- *reduced energy consumption*

*In keeping with Maine's conservative heritage, the goal of the State's waste materials management is to support the development of a sustainable, economically viable system that directs the resources inherent in waste materials into a "circular economy" while **protecting public health and the environment** (emphasis mine). Objectives to help achieve this goal include diverting materials from disposal to beneficial use and recycling, supporting design of products and packaging to have recycling value at the end-of-life, and conserving landfill capacity to minimize the need for development of new capacity."*

The Focus For The Future:

"Zero waste is a philosophy and a design principle for the 21st Century; it is not simply about putting an end to landfilling. Aiming for zero waste is not an end-of-pipe solution. That is why it heralds fundamental change. Aiming for zero waste means designing products and packaging with reuse and recycling in mind. It means ending subsidies for wasting. It means closing the gap between landfill prices and their true costs. It means making manufacturers take responsibility for the entire lifecycle of their products and packaging. Zero waste efforts, just like recycling efforts before, will change the face of solid waste management in the future. Instead of managing wastes, we will manage resources and strive to eliminate waste." Institute for Local Self Reliance (Washington, DC)

Maine continues to be at a crossroads with materials management. In February, 2015, the Senator George J. Mitchell Center for Sustainability Solutions, University of Maine, Materials Management Research Group issued a [report](#)⁵¹ that included recommendations for moving forward. There has been some progress, but much remains to be done. During the regional meetings, the **Department was challenged to produce suggestions of how resource management can be brought under local control.** I advocated: **Job One must be to initiate the steps needed to extricate Maine from what feels like to many, a stranglehold of Casella and WM on what happens with materials handling in Maine.** The public asserted that **citizens want a meaningful place at the policy decision table and a plan that equally shares the burdens and benefits of resource management among Maine communities.** They want **increased local control** of outcomes and accountability, and are looking for **real solutions** they can support.

It was highlighted that Maine **must make a serious effort to implement front-end approaches that reduce the quantity and toxicity of what is disposed.** The argument was made that there is **no "away" for what we waste** and the reality is that **some communities**, primarily those economically challenged; or consisting of marginalized, colored or Indigenous people, have been **used as sacrifice zones** for negligent and unjust waste handling operations that endanger public health and the environment. The public raised the problem of the **extensive burden**⁵² **placed on Penobscot County with the siting of landfills.** Already the Department has identified approximately **12%**⁵³ of the closed municipal landfills in Maine as environmental risks.

Solutions will include a combination of approaches that **rethink and revamp resource management systems.** Removal of organics from the waste stream demonstrates that the **most economical results** when considering the overall lifecycle of resources, are **not end-of-pipe**

⁵¹ Blackmer, Travis; Criner, George; Hart, David; Isenhour, Cynthia; Peckenham, John; Rock, Chet; Rude, Avinash; Silka, Linda, *Solid Waste Management in Maine: Past, Present and Future*: <https://umaine.edu/mitchellcenter/wp-content/uploads/sites/293/2015/02/FINALSolid-Waste-Whitepaper-2.pdf>

⁵² Schaufler, Marina, September 10, 2023, The Maine Monitor, Compound Injustice: PFAS may concentrate over time in Landfills near the Penobscot Indian Reservation: <https://themainemonitor.org/compound-injustice-pfas-may-concentrate-over-time-in-landfills-near-the-penobscot-indian-reservation/>

⁵³ Pp. 8 [Maine Materials Management Plan: State Solid Waste Management and Recycling Plan 2019 Update](#)

approaches. Methods should be created on the **front-end for modifications of the supply chain design and consumer behavior**. It **must be emphasized**, that the consumer must choose from the available options of goods, so **undue responsibility cannot be accrued to the individual consumer** for outcomes. **Improvement is primarily a production design and systems issue.**

Single stream recycling was initially **promoted to have significant benefits**; but that is **being rethought**⁵⁴. In practice it is being **understood**,⁵⁵ it may increase the distances that materials are transported, and **consolidates operations for the private, for-profit sector**. These **outcomes work against local community and regional efforts**. Single stream recycling **contributes to contamination of materials, decreasing their value and ability to be repurposed**. The significant investment required for single stream materials recovery **facilities** has had the result that **most are located in centralized urban centers**. This puts **rural communities at a serious disadvantage**. Returning to **separated recycling streams could spur infrastructure build-out; improve outcomes and encourage market development; increase value added to products produced; and contribute to the profitability for programs.**

The meetings included conversations devoted to probing ways to promote household waste reduction and how to **create effective, intersectional programs that elicit awareness, participation and are convenient; and include incentives that create strong social environments, shared values, and structural support**. It was expressed that desired goals should produce outcomes that reflect the characteristics of the participating communities. It was indicated that Maine should **examine and evaluate collaborations between the public and private sectors to ascertain what is truly adding value to citizens' quality of life; what protects public health and the environment; and what contributes to growing and stabilizing the local economy.**

It was noted that **Maine has become a national leader** in areas of waste policy. **Some of that leadership has been in response to crisis situations**. Maine's response to the PFAS calamity was initiated by brave farmers who sounded the **alarm**⁵⁶. Maine's **leadership should continue and look for opportunities to be proactive and develop from a framework**⁵⁷ **of resource conservation with the goal of precaution and prevention as to outcomes and impacts**⁵⁸. In 2021, Maine established its **Product Stewardship Programs**⁵⁹ that include proper management requirements

⁵⁴ Koerth, Maggie, January 10, 2019, FiveThirtyEight, The Era Of Easy Recycling May Be Coming To An End: <https://fivethirtyeight.com/features/the-era-of-easy-recycling-may-be-coming-to-an-end/>

⁵⁵ Cho, Renee, March 13, 2020, Columbia Climate School, *Recycling in the U.S. Is Broken. How Do We Fix It?*: <https://news.climate.columbia.edu/2020/03/13/fix-recycling-america/>

⁵⁶ Perkins, Tom, March 22, 2022, The Guardian, *I don't know how we'll survive*: https://www.theguardian.com/environment/2022/mar/22/i-dont-know-how-well-survive-the-farmers-facing-ruin-in-americas-forever-chemicals-crisis?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202022-03-30%20Waste%20Dive%20Newsletter%20%5Bissue:40729%5D&utm_term=Waste%20Dive

⁵⁷ Kriebel, D.; Tickner, J.; Epstein, P.; Levins, R.; Loechler, E.L.; Quinn, M.; Schettler, T.; Stoto, M.; September, 2001, Environmental Health Perspectives, *The precautionary principle in environmental science*: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240435/>

⁵⁸ Tingley, Tim, August 16, 2023, New York Times, *'Forever Chemicals' Are Everywhere. What Are They Doing to Us?*: <https://www.nytimes.com/2023/08/16/magazine/pfas-toxic-chemicals.html>

⁵⁹ Maine Department of Environmental Protection, *Maine's Product Stewardship Programs*: <https://www.maine.gov/dep/waste/productstewardship/index.html>

for mercury-containing products; rechargeable and non-rechargeable batteries; electronics and cell phones; and paint. Fluorescent bulbs which contain mercury can no longer be sold in Maine beginning in 2026. Programs for bulky wastes, mattresses, carpets, textiles, and other waste streams need development.

“Maine’s [Product Stewardship Framework law](#)⁶⁰ affirms product stewardship programs as an integral part of the State’s solid waste management strategy. This law sets up a pre-legislative process for considering candidates for new product stewardship programs and changes to Maine’s existing product stewardship programs. This process provides the opportunity for municipalities, manufacturers, retailers, consumers, and non-governmental organizations to provide their input into the establishment and revision of product stewardship programs in Maine.”

One of the major contributors to the materials management problem is plastic. **It has been said we don’t have a waste problem. We have a [plastics](#)⁶¹ problem.** Maine’s bottle bill and restriction of single-use plastic bags are important steps in the right direction. However, the American Chemical Council and the fossil fuel industry continue to challenge those efforts. Shredded plastic from Ireland headed for incineration at the PERC incinerator in Orrington, was accidentally [dumped](#)⁶² into the ocean at Searsport. The incident again raised the issue of importing waste into Maine for processing and disposal. **Integral to materials management planning is instituting policies and regulations that will protect Maine from becoming a regional or international dumping ground.** There are those making the argument that **recycling plastic is not a feasible long-term solution.** They point to [increased risks](#)⁶³ of toxic chemical exposure from recycled plastics and the failing recycling rate as proof of inefficiency.

“It’s clear that we need to stop producing so much wasteful plastic in the first place”

Celeste Meiffren-Swango, the Zero Waste program director with Environment America

Overarching Considerations:

- How will the Department institute **meaningful participation for members of the public who are most impacted** by policy and licensing decisions?

⁶⁰ Title 38, Chapter 18: Product Stewardship:

<http://www.mainelegislature.org/legis/statutes/38/title38ch18sec0.html>

⁶¹ McGlone, Conor, November 7, 2022, *Engineering and Technology, Is chemical recycling greenwashing?*:

<https://eandt.theiet.org/content/articles/2022/11/is-chemical-recycling-greenwashing/>

⁶² Curtis, Abigail, December 10, 2020, Bangor Daily News, *Trash being shipped to Orrington incinerator from Ireland washes up on shores of Sears Island:*

<https://www.bangordailynews.com/2020/12/10/news/midcoast/trash-being-shipped-to-an-orrington-incinerator-from-ireland-washes-up-on-shores-of-sears-island/>

⁶³ May 24, 2023, Greenpeace, *Forever Toxic: The Science On Health Threats From Plastic Recycling:*

https://prod.greenpeaceusa.info/usa/wp-content/uploads/2023/05/GreenpeaceUSA_ForeverToxic_ENG.pdf

- How will the Department **provide** waste generation **data** that is consistent across various metrics and is **easily accessible and understood to support informed public participation**?
- How will the Department **protect municipalities from the burden of absorbing externalized environmental costs of materials management**?
- What clarification/action does the Department require to **improve public benefit assessments and implementation of Environmental Justice for policy and licensing decisions**?
- What support/action is needed for the Department to have adequate authority and **resources to provide technical and financial assistance to municipalities to achieve substantial waste reduction, diversion and recycling goals**?
- Going forward, will the Department take steps to require maximum achievable control technology (MACT) regulation and **CEM⁶⁴ monitoring of all emissions associated with WTE**?
- How will the Department address **cumulative, compounding, and synergistic impacts to public health and the environment from continued emissions and discharges of landfills and WTE facilities to those communities already most impacted**?
- Will the Department commit to develop **laws and rules to remove identified toxic elements, not limited to PFAS, from the waste stream on the front-end**?

It would be remiss to not mention that **public participation has encouraged some important initiatives like EPR or our improved bottle bill. Important legislation has also come at the initiation of citizen advocates to protect disposal capacity⁶⁵ for Maine citizens.** The public has promoted addressing toxics in plastics and efforts to get PFAS out of food packaging and other products. The **ban on land-spreading sludge⁶⁶** was a response to a **threat revealed by Maine’s courageous farmers who went public about PFAS contamination.** The ban still stands and must be maintained. Efforts that include **meaningful public involvement in policy development should be increased and encouraged.**

Conclusions:

- **Waste diversion and recycling alone is insufficient to move us beyond the current unsustainable system**

⁶⁴ Wallace, Jacob, August 3, 2023, Waste Dive, *Oregon becomes first state to require continuous emissions monitoring at incinerators:*

<https://www.wastedive.com/news/oregon-incinerator-emissions-law-sb-488-covanta-marion/689838/>

⁶⁵ Maine 130th Legislature, April 18, 2022, LD 1639, *An Act To Protect the Health and Welfare of Maine Communities and Reduce Harmful Solid Waste:*

<https://legislature.maine.gov/bills/getPDF.asp?paper=SP0523&item=7&snum=130>

⁶⁶ Maine 130th Legislature, April 20, 2022, LD 1911, *An Act To Prevent the Further Contamination of the Soils and Waters of the State with So-called Forever Chemicals:*

<https://legislature.maine.gov/bills/getPDF.asp?paper=HP1417&item=8&snum=130>

- The regulatory framework around waste management has been primarily established by industry
- Environmental Justice has not been considered with policy development or with siting and licensing decisions for facilities and operations
- Planning has made no effort to formulate analysis and develop policy with a view to precaution as pertains to synergistic, compounding, and cumulative impacts to public health and the environment

We must rethink what we are doing and why we are doing it, and shift the focus to front-end choices that are: less extractive; are less toxic; support less overall consumption and eliminate needlessly wasteful outcomes; and foster equity and justice in policy decisions.

Specifics To Be Addressed:

- How does the Department envision offsetting the significant influence Casella and WM have on regulation; consolidation of collection services; processing and disposal; and siting and licensing for facilities?
- How will the Department assure the OSA between Casella and the State to operate JRL will better align outcomes with statutory requirements and maximize disposal capacity for Maine waste?
- What steps will the Department take going forward to employ Environmental Justice considerations that protect public health and the environment and ensure benefits and burdens of resource and materials management are shared equitably by all Maine citizens?
- What steps will the Department take to implement Environmental Justice for communities already heavily impacted by waste handling operations?
- What authority and resources are required by the Department to develop publicly-owned/controlled waste management infrastructure that prioritizes waste reduction; protects public health and the environment; conserves disposal capacity; and that institutes principles of Environmental Justice?

Thank you for considering these comments.

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