Report to the Joint Standing Committee on Environment and Natural Resources
129th Legislature, First Session

Maine Materials Management Plan

State Solid Waste Management and Recycling Plan 2019 Update

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I. Introduction

This 5-year update to Maine's 2014 Materials Management Plan has been prepared in accordance with 38 M.R.S. § 2122, which provides:

> *"The department shall prepare an analysis of, and a plan for, the management, reduction and recycling of solid waste for the State. The plan must be based on the priorities and recycling goals established in sections 2101 and 2132. The plan must provide guidance and direction to municipalities in planning and implementing waste management and recycling programs at the state, regional and local levels….. The department shall revise the analysis by January 1, 2014 and every 5 years after that time to incorporate changes in waste generation trends, changes in waste recycling and disposal technologies, development of new waste generating activities and other factors affecting solid waste management as the department finds appropriate."* (See Appendix A for complete text.)

38 M.R.S. 1303-C.29 defines solid waste as "useless, unwanted or discarded solid material with insufficient liquid content to be free-flowing…" Solid waste is generated by Maine's industrial, commercial and institutional sectors, as well as by households. 38 M.R.S. § 1305 assigns responsibility for the management of the municipal solid waste (MSW) component: "Each municipality shall provide solid waste disposal services for domestic and commercial solid waste generated within the municipality…" This has resulted in MSW being managed by a combination of municipal and commercial waste handling services and facilities as each municipality determines how it wants to fulfill its statutory responsibility. Industrial and institutional generators manage the solid waste they generate through their own privately-owned facilities and through contracting with commercial services.

Based on an analysis of current waste management practices in Maine and guided by Maine's *Solid Waste Management* and *Food Recovery Hierarchies* (see Appendix B), this 5-year update includes strategies and actions focused on:

- increasing waste reduction and reuse initiatives,
- building on recent successes in increasing the diversion of organics from disposal,
- diverting materials from landfill disposal, and
- addressing current conditions and trends that create disincentives to managing wastes further up the hierarchy.

This "Materials Management Plan" provides a shared roadmap to guide state and municipal efforts over the next five years to achieve economically efficient and environmentally responsible management of the solid waste materials we generate in our daily lives.

II. Purpose of the Plan and Vision for Waste Management in Maine

In 1989, Maine established a comprehensive framework for solid waste management by enacting PL 1989 Chapter 585, *An Act to Promote Reduction, Recycling and Integrated Management of Solid Waste and Sound Environmental Regulation*. This law established cornerstones that continue to guide the development of solid waste policies, planning and facilities in Maine, including:

- delineation of the Solid Waste Management Hierarchy as the basis for planning an integrated approach to solid waste management;
- a ban on new commercial disposal facilities;
- public sector responsibility for ensuring disposal capacity for municipal solid waste;
- state authority to develop and operate state-owned disposal facilities;
- the development of a *State Solid Waste and Recycling Plan* and 5-year updates;
- establishment of a statewide recycling goal;
- the establishment of the Maine Solid Waste Management Fund; and
- the authority for the state to provide technical and financial assistance to municipalities to help achieve the statewide recycling goal.

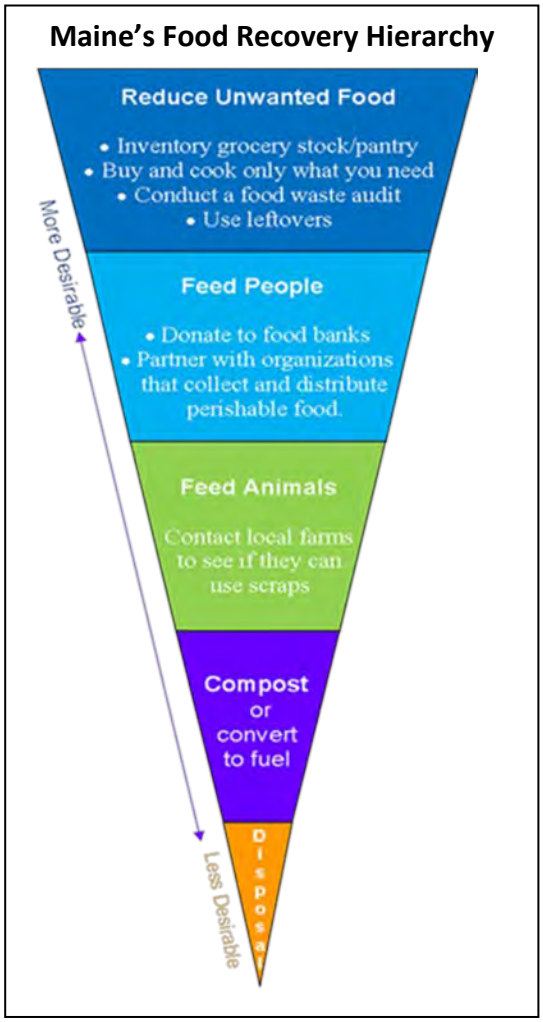
Prior to 2014, the State Planning Office (SPO) developed the 5-year updates to the *State Solid Waste and Recycling Plan*. Following the elimination of SPO, in 2014 the Department developed the Maine Materials Management Plan: 2104 State Waste Management and Recycling Plan Update. Appendix C highlights the progress made in the management, reduction and recycling of solid waste resulting from implementation of the strategies contained in the 2014 update.

As a complement to the State's efforts during this time, in 2014 and 2015 the Mitchell Center for Sustainability Solutions at the University of Maine (Mitchell Center) led a stakeholder process to explore Maine's solid waste challenges and strategies for achieving Maine's waste reduction and recycling goals. Over 200 participants from both the public and private sector across the state almost unanimously agreed that we should strive for progress toward a future with less waste and greater rates of recovery.[1] This initiative highlighted the importance of focusing on generating less waste and less toxic wastes, and recovering materials to be processed into commodities as critical for Maine to achieve its goals of decreasing the amount of waste disposed by 5% per capita every five years and achieving a 50% statewide rate of recycling (38 M.R.S. § 2132).

[1] Isenhour, Cindy; Blackmer, Travis; Wagner, Travis; Silka, Linda; and Peckenham, John, "Moving up the Waste Hierarchy in Maine: Learning from "Best Practice" State-Level Policy for Waste Reduction and Recovery" (2016). *Publications.* 20. *https://digitalcommons.library.umaine.edu/mitchellcenter_pubs/20*

A. Guiding Principles - Maine's Waste Management and Food Recovery Hierarchies

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, followed by reuse, recycling, composting, volume reduction through waste-to-energy incineration, and landfilling as the management option 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 (see Appendix B for statutes).



Preventing the generation of waste is at the top of Maine's Solid Waste Management Hierarchy because it provides the greatest environmental benefits, including:

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

Management options below waste reduction on the hierarchy also offer environmental benefits, although to a lesser extent, with the amount of benefit decreasing with each drop along the hierarchy:

- Reuse ensures products and materials are used to the fullest extent practicable, delaying and avoiding the need for replacement products and the environmental costs of their production.
- Recycling captures and conserves material resources for reuse in manufacturing and production applications, often also reducing the amount of energy needed to create new products and avoiding environmental impacts associated with extraction of virgin materials from the earth.
- Composting transforms organic wastes into a soil amendment that increases fertility and soil structure, enabling more productive agricultural production.
- Conversion technologies convert waste materials to fuel, creating a substitute for virgin fossil fuels or other fuel types. Anaerobic digestion facilities are a type of conversion technology that can utilize wasted food as a feedstock to produce fuel and valuable by-products for agricultural uses.
- Waste-to-energy combustion reduces the volume of waste prior to landfilling and generates electricity in the process.

B. A Vision for Waste Management in Maine

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.[2] 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.

All sectors in Maine - public, private, industrial, institutional, commercial, for-profit and non-profit - must work together to achieve an economically and environmentally sustainable waste management system in Maine. Creating and investing in systems that support a circular economy will ensure that the various components of Maine's solid waste stream are managed as high on the Solid Waste

[2] The Ellen Macarthur Foundation provides in-depth discussion of the concept of a "circular economy" and initiatives and resources to create "an economy that is restorative and regenerative by design" at www.ellenmacarthurfoundation.org/.

Management Hierarchy as possible. Forward-looking industrial, commercial, institutional and governmental entities are implementing plans to achieve "zero waste" and to operate successfully in the circular economy. State government can facilitate these efforts by:

- Bringing together private and public partners to work on local initiatives that support a circular economy,
- Educating and influencing consumers to make purchases with "reduce, reuse, recycle" in mind,
- Catalyzing private sector solutions to materials management challenges, and
- Ensuring that the environmental costs of managing unwanted products are not externalized to municipalities.

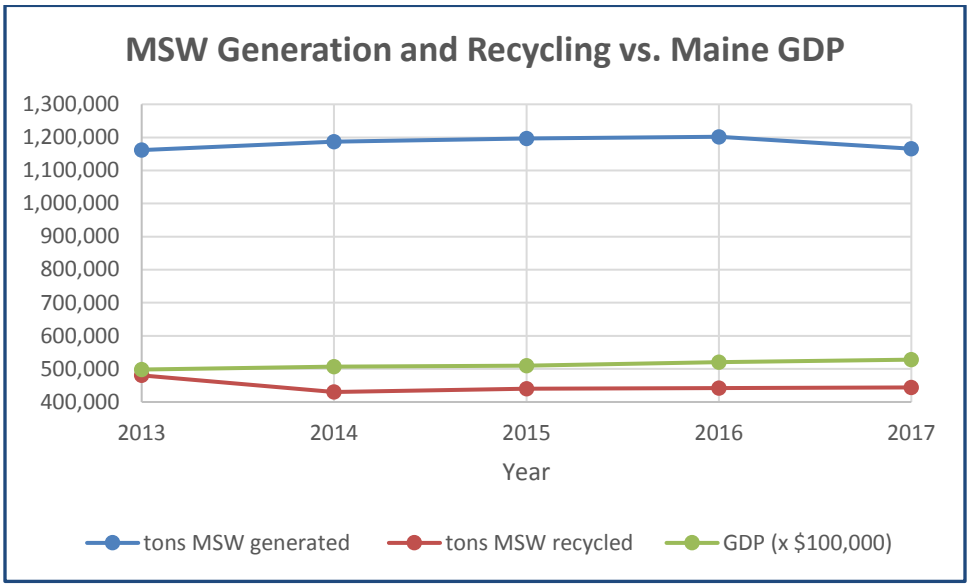
The strategies and actions in this 5-year update to Maine's Solid Waste Management Plan have been developed based on the best available data on waste generation and disposal capacity in Maine. They are designed to build on the successes and lessons learned from initiatives implemented by state and local jurisdictions and private entities to minimize waste disposal and maximize the reuse of materials.

III. Trends in solid waste generation and materials management in Maine

A. Waste Generation and Per Capita Disposal

Each year the Department develops and submits a *Waste Generation and Disposal Capacity Report* to the Joint Standing Committee on Environment and Natural Resources pursuant to 38 M.R.S. § 2124-A. This "WGDC" report provides an overview of Maine's solid waste generation, diversion, and disposal activities during the calendar year two years' prior to the year of submittal, and an evaluation of Maine's progress toward our waste reduction and recycling goals.[3] It also includes a projection of the solid waste disposal needs of Maine for the next 5, 10, and 20 years, and how the fill rate at each solid waste landfill could affect the expected lifespan of that landfill. (Recent years' WGDC reports can be found on-line at www.maine.gov/dep/publications/reports/index.html.)

Review of the WGDC reports from the past several years show that the amount of MSW generated in Maine has remained relatively stable even as the economy has grown. Maine's MSW recycling rate has also remained relatively unchanged from 2013 through 2017.



Historically, waste generation rates tracked with Gross Domestic Product (GDP) rates, i.e., as GDP increased or decreased, so did waste generation. Although we have been in a period of economic growth, MSW generation has remained relatively stable for the past 5 years, and actually decreasing in 2017 counter to the GDP trend. Along with a slowing of the rate of waste generation, Maine

[3] DEP calculates the statewide MSW recycling rate based in part on voluntary reporting by brokers of recyclables from Maine. Because reporting by recycling brokers is not mandatory, DEP cannot ensure the completeness of the data.

experienced a decrease in disposal in 2017 compared with 2016 (721,646 tons v. 759,638 tons respectively).

B. Recycling hit economic headwinds in 2018

Although data for calendar year 2018 is not yet available, Maine is likely to experience a drop in its MSW recycling rate in 2018 compared to 2017. This decrease may happen due to closure of markets in China to fiber (various grades of cardboard and paper) and plastics recycling streams. China implemented this "National Sword" program of waste import bans and non-renewal of import licenses beginning January 1, 2018 due in part to unacceptable contamination rates in bales of materials being shipped from the U.S. This closure of markets in China to recyclables has caused supply to outstrip the capacity of facilities available to process the materials into commodities for the production markets, resulting in a significant and on-going drop in the value of recyclables. Compounding this negative economic impact, existing markets outside of China generally have higher quality specifications, causing materials recovery facilities to invest more time and labor in sorting single-stream recycling to create bales of materials acceptable to these available markets. China is not expected to re-open its markets to imports, opening opportunities for the development of new domestic processing capacity.

Over the past several years, the evolution of information media and product packaging has resulted in significant changes in the composition of the recycling waste stream.[4] The amount of newspapers has decreased dramatically, flexible packaging (e.g., multi-laminate pouches) is replacing glass and rigid plastic containers, and cardboard is increasing with the addition of packaging from home delivery of goods purchased through internet sales. This evolution has caused an overall decline in value of recyclable wastes, along with new sorting challenges for materials recovery facilities (MRFs) which separate single-stream recycling into its component commodities, and a quest for new processes to enable the economically-viable recycling of multi-laminate materials.

The changed economics of recycling have caused many municipalities in Maine to consider curtailing or eliminating their programs. Some communities have faced steep increases in costs for recycling services from private-sector companies; when these costs are greater than the cost of disposal some are opting to suspend recycling services, at least until recycling is less costly than disposal. Decreased market values have caused some towns that operate facilities which collect source-separated materials to stop collecting mixed plastics, redirecting this recycling stream to disposal.

The current market conditions for solid waste management in Maine have created significant drivers that work against managing wastes further up Maine's Solid Waste Management hierarchy. For

[4] *Resource Recycling,* October 2018, "Data corner: The evolving ton over 25 years", available at https://resource-recycling.com/recycling/2018/10/29/data-corner-the-evolving-ton-over-25-years/

many municipalities, the cost of landfilling is less than the cost of incineration, both of which are less than the cost of recycling, providing a strong, immediate financial disincentive for managing waste further up the hierarchy.

C. Increasing disposal at Maine's state-owned landfill

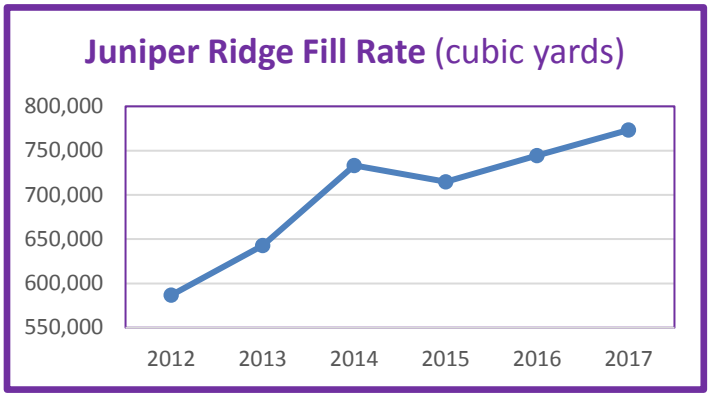
PL 1989 Chapter 585, *An Act to Promote Reduction, Recycling and Integrated Management of Solid Waste and Sound Environmental Regulation* established a comprehensive framework for solid waste management in Maine. Included were provisions that established the Solid Waste Management Hierarchy, a ban on new commercial disposal facilities, public sector responsibility for ensuring disposal capacity for municipal solid waste, and state authority to develop and operate state-owned solid waste disposal facilities. These provisions were intended to provide the State with tools to encourage diversion of solid waste from landfilling and minimize the need for the development of additional landfill capacity.

Since the enactment of this law, the State has established ownership of three licensed landfills: the yet-to-be-developed Carpenter Ridge Landfill with 1.8 million cubic yards capacity, the inactive and partially-closed Dolby Landfill in East Millinocket, and the Juniper Ridge Landfill (JRL) in Old Town. When obtained by the State the licenses for each of these landfills were focused on providing disposal capacity for special wastes (wastes other than domestic and typical commercial establishments that exist in such an unusual quantity or in such a chemical or physical state that require special handling, transportation and disposal procedures). In April 2004, the State received a license amendment that provided for the acceptance of additional waste types at JRL (then known as the "West Old Town Landfill" or "WOTL"), including: front-end process residue ("FEPR") from the Penobscot Energy Recovery Company (PERC) waste-to-energy incinerator in Orrington and Maine Energy in Biddeford; oversized bulky wastes; MSW bypassed from incinerators located in Maine; construction and demolition debris; ash from incinerators located in Maine; and water/wastewater treatment sludge. The findings of facts in that permit state: "The yearly quantity of solid waste to be accepted at the landfill is not expected to exceed 540,000 tons per year", inclusive of up to 50,000 tons per year of mill wastes from the Old Town papermill, 120,000 tons of front end process residue and 70,000 tons of ash from two waste-to-energy incinerators (PERC and MERC), and 190,000 tons of CDD.

In December 2013, the WOTL (now JRL) was licensed to accept up to 81,800 tons of MSW generated in Maine into its existing permitted landfill area. This amendment was sought to provide a temporary alternative (through March 31, 2018) for disposal of MSW generated in municipalities that had been sending their MSW to the Maine Energy (MERC) facility in Biddeford prior to its closure in December 2012. In 2018, this approval was extended through March 31, 2020 to account for the near-term uncertainty in disposal capacity as PERC adjusts to its new operating model and the Fiberight processing facility in Hampden begins operations. In June 2017, the State, acting

through its Bureau of General Services (BGS) and NEWSME (the State's contracted operator of JRL) received approval for a 9.35 million cubic yard expansion.

Data show that the fill rate at JRL has increased by almost 32% since 2012, with the amount of waste landfilled in 2017 more than 40% higher than the annual maximum amounts anticipated in 2004 when the State applied to take wastes not previously accepted into the then monikered West Old Town Landfill.



The data also show significant changes in the types of waste being landfilled at JRL in 2017 compared with 2012. There has been a substantial drop in front-end process residue (FEPR) and MSW incinerator ash due to the closure of the MERC facility, as well as industrial wastewater treatment plant sludges and papermill wastes due to the closure of the papermills in Old Town and Lincoln. However, the fill rate at JRL climbed during this time due to significant increases in the disposal of MSW (from 0 tons in 2012 to 81,802 tons in 2017) and CDD (from 306,124 tons in 2012 to 383,346 tons in 2017).

Much of the large volume of CDD landfilled at Juniper Ridge comes from processing facilities located in Maine. Although 38 M.R.S § 1310-N.11 prohibits the disposal of waste from out of state in state-owned disposal facilities, it also allows "waste generated within the State" to include "residue and bypass generated by incineration, processing and recycling facilities within the State". Processing facilities are required by Maine law [38 M.R.S § 1310-N.5-A(B)(2)] to recycle at least 50% of the CDD they accept, but are allowed to count "…reuse of waste as shaping, grading or alternative daily cover materials at landfills; aggregate material in construction; and boiler fuel substitutes" toward this 50% recycling rate minimum. These two provisions, coupled with a ban on the disposal of CDD in Massachusetts, have resulted in large quantities of out-of-state CDD being processed by facilities in Maine, with the fines being used as "shaping, grading or alternative daily cover materials" and residual CDD allowed into JRL as "in-state" waste.

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 specificity as to the appropriate use of state landfill capacity.

IV. Strategies to reduce, reuse, recycle

In 2016, the Mitchell Center's report *Moving up the Waste Hierarchy in Maine: Learning from "Best Practice" State-Level Policy for Waste Reduction and Recovery* was published in the *Maine Policy Review*. This report identifies state-level policies as "best practice" based on their potential to reduce waste generated, divert waste from disposal, and recover material resources as feedstock for new products. This report had been previously submitted to the Maine Legislature's Environment and Natural Resources Committee in November 2015, providing a review of strategies adopted in other states for the ENR Committee's consideration.

The strategies identified below are consistent with the "best practices" included in the Mitchell Center report and with the role of state government in supporting municipalities and businesses in developing waste reduction and recycling solutions. Many of the strategies to improve recovery of materials for recycling and composting focus on components of the waste stream that are currently primarily "managed" through disposal and pose significant challenges (cost and /or safe management) for municipal waste management systems.

The following strategies and activities will be pursued by the Department and identified partners.

A. Strategies and actions to support waste reduction

- Explore initiatives by other jurisdictions (state and local) that have been successful in reducing waste generation and recycling systems' operational costs to determine potential for success in Maine, and develop proposals for legislative and/or local jurisdictional consideration as appropriate.
- Increase education and outreach to reduce waste generation by increasing initiatives related to the shared economy and increasing product life, such as tool and equipment lending libraries, and community repair cafes.
- Revise the criteria for its Environmental Leader program to include recognition for businesses that reduce their use of single-use plastics.
- Identify data elements needed to conduct a "Consumption-based GHG Emissions Inventory", and assess usefulness of this inventory approach.
- Support local initiatives to reduce wasted food through technical assistance and grant funding prioritization.
- Support strategies to decrease and eliminate single-use plastics whenever it is feasible to use readily-available alternatives.

B. Strategies and actions to support reuse

- Collaborate with Maine Department of Transportation to identify opportunities to beneficially reuse waste materials (such as shingles and glass) in transportation projects.
- Assess the potential impact of "Right to Repair" legislation for consumer goods in Maine. This legislation ensures manufacturers make diagnostic and repair information and any specialized tools readily available to independent shops and consumers so that owners may repair their own goods and small businesses have affordable access to repair information and tools.
- Develop a menu of strategies and supporting educational materials for municipalities to reduce consumption of new products through community sharing arrangements such as tool and equipment lending libraries, community repair cafes, school "share tables", and swap shops at transfer stations and recycling centers
- Specify reuse and repair infrastructure and program development as eligible activities within competitive grant opportunities.
- Promote economic incentives for businesses and organizations that focus on reuse of consumer goods.

C. Strategies and actions to support recycling & composting

- Explore financial support mechanisms (e.g., revolving loan fund, tax credits) that may be implemented by the state to support the development of infrastructure and initiatives to increase the recovery of useable materials from Maine's solid waste stream.
- Continue to provide technical support for local food scrap composting.
- Provide technical assistance to schools to increase recycling and composting.
- Continue to assist food scrap generators to connect with facilities that offer alternatives to disposal.
- As funds are available, offer grants for regional infrastructure development for recycling and composting. Review data on changes in waste diversion due to implementation of grants to assess effectiveness and inform targeting of additional grant opportunities.
- Alert municipalities and businesses to opportunities like Closed Loop Partners no-interest/low-interest loans for recycling systems development.
- Explore options for managing consumer products at end of life that reduce municipal costs and support the development and operations of efficient recycling systems.
- Support legislation to require reporting by entities marketing recyclables from Maine to develop accurate and complete data on statewide waste generation and recycling.
- Explore options to increase recycling of packaging.

- Provide technical support for municipal, regional and cooperative composting and recycling initiatives, including facilitation of the development of standardized educational messaging such as Connecticut's "What's In, What's Out" campaign.
- Re-establish regular consultations between State Procurement Services and the DEP to evaluate opportunities to increase environmentally preferable purchasing and diversion of recyclables and food scraps from state facilities. These opportunities include but are not limited to: lease vs. purchase and purchase with takeback options (e.g., equipment, carpeting); minimum recycled content specifications; review of Master Agreements for waste management services to remove any barriers to increasing recycling and food scrap diversion from disposal and to require reporting on waste diversion vs. disposal; and pursuing rating under the State Electronics Challenge.
- Integrate food scrap separation and management for reuse/composting into state office building (owned and leased space) dining services contracts.
- Collaborate with the Department of Economic and Community Development to direct resources from its programs, including the Finance Authority of Maine, the Maine Technology Institute and the Small Enterprise Growth Fund, to promote research and start-up businesses that support materials management at the upper levels of the Hierarchy.
- Evaluate the need to refine Maine's Solid Waste Management Hierarchy and Food Recovery Hierarchy to prioritize conservation of materials for reuse.

D. Strategies and actions to encourage management of wastes further up the hierarchy

- Evaluate potential effects of legislation to better align landfill operations and economic incentives with managing wastes in accordance with Maine's Solid Waste Management Hierarchy, including:
    - restrictions on disposal of certain recyclables and food wastes;
    - restrictions on disposal of unprocessed MSW in state-owned landfills;
    - restrictions on the amount of waste that can be disposed in state-owned landfills that is derived from wastes originating from outside of Maine; and
    -
    - clarification of the purpose of state-owned landfills to ensure capacity for Maine-generated solid wastes.
- Evaluate revising the waste handling fees established pursuant to 38 M.R.S. § 2202 et seq. to incentivize the management of wastes further up Maine's Solid Waste Management Hierarchy.
- Develop a proposal to place a fee on MSW disposed in landfills sufficient to incentivize materials recovery and waste-to-energy over landfilling, with at least a portion of revenues dedicated to the Maine Solid Waste Diversion Grant Program established by 38 M.R.S. § 2201-B.

- Review the Operating Services Agreement for Juniper Ridge Landfill to identify updates needed to reflect current conditions and to better align provisions with Maine's Solid Waste Management Hierarchy and 5 M.R.S. § 1783 "Lease of state-owned facilities".
- Review data and information concerning CDD processing operations focused on the nature and volume of processing residues being landfilled to identify opportunities to drive a reduction in the volume of CDD fines and residues being landfilled.
- Evaluate the effect and utility of the statutory provision that allows processing facilities to include the use of CDD fines as landfill shaping, grading and alternative daily cover material when calculating their recycling rate [38 M.R.S. § 1310-N-5.A(B)(2)] for consistency with the State's Solid Waste Management Hierarchy.

V. Conclusion

This 5-year update to the State's *Solid Waste Management and Recycling Plan* continues the focus on encouraging the evolution from a linear make-take-waste economy to a circular economy where products and materials are reused and recaptured to make new products. State government can facilitate public and private entities involved in waste materials management to fully participate in the circular economy by providing technical support and financial incentives to divert materials from disposal to reuse and recycling.

Currently, recycling and disposal market conditions are at times inconsistent with managing wastes in accordance with Maine's Solid Waste Management Hierarchy. Critical to successfully attaining the state's goal of recycling 50% of the MSW generated will be actions that ensure market conditions consistently support recycling over disposal for readily-recycled materials. This update enumerates strategies that DEP will pursue to encourage waste reduction, reuse of products, recycling of materials and composting of organics to continuously improve in achieving the State's waste management goals.

APPENDICES

Appendix A – Maine's "State waste management plan" and "State plan contents" statutes

38 MRS §2122. State waste management and recycling plan

The department shall prepare an analysis of, and a plan for, the management, reduction and recycling of solid waste for the State. The plan must be based on the priorities and recycling goals established in sections 2101 and 2132. The plan must provide guidance and direction to municipalities in planning and implementing waste management and recycling programs at the state, regional and local levels.

1. **Consultation.** In developing the state plan the department shall solicit public input and may hold hearings in different regions of the State.

2. **Revisions.** The department shall revise the analysis by January 1, 2014 and every 5 years after that time to incorporate changes in waste generation trends, changes in waste recycling and disposal technologies, development of new waste generating activities and other factors affecting solid waste management as the department finds appropriate.

38 MRS §2123-A. State plan contents

The state plan includes the following elements.

1. **Waste characterization.** The state plan must be based on a comprehensive analysis of solid waste generated, recycled and disposed of in the State. Data collected must include, but not be limited to, the source, type and amount of waste currently generated; and the costs and types of waste management employed including recycling, composting, landspreading, incineration or landfilling.

2. **Waste reduction and recycling assessment.** The state plan must include an assessment of the extent to which waste generation could be reduced at the source and the extent to which recycling can be increased.

3. **Determination of existing and potential disposal capacity.** The state plan must identify existing solid waste disposal and management capacity within the State and the potential for expansion of that capacity.

4. **Projected demand for capacity.** The state plan must identify the need in the State for current and future solid waste disposal capacity by type of solid waste, including identification of need over the next 5-year, 10-year and 20-year periods.

Appendix B – Maine's solid waste management and food recovery hierarchies

38 MRS §2101. Solid waste management hierarchy

1. Priorities. It is the policy of the State to plan for and implement an integrated approach to solid waste management for solid waste generated in this State and solid waste imported into this State, which must be based on the following order of priority:

A. Reduction of waste generated at the source, including both amount and toxicity of the waste;

B. Reuse of waste;

C. Recycling of waste;

D. Composting of biodegradable waste;

E. Waste processing that reduces the volume of waste needing land disposal, including incineration; and

F. Land disposal of waste.

It is the policy of the State to use the order of priority in this subsection as a guiding principle in making decisions related to solid waste management.

2. Waste reduction and diversion. It is the policy of the State to actively promote and encourage waste reduction measures from all sources and maximize waste diversion efforts by encouraging new and expanded uses of solid waste generated in this State as a resource.

38 MRS §2101-B. Food recovery hierarchy

1. Priorities. It is the policy of the State to support the solid waste management hierarchy in section 2101 by preventing and diverting surplus food and food scraps from land disposal or incineration in accordance with the following order of priority:

A. Reduction of the volume of surplus food generated at the source;

B. Donation of surplus food to food banks, soup kitchens, shelters and other entities that will use surplus food to feed hungry people;

C. Diversion of food scraps for use as animal feed;

D. Utilization of waste oils for rendering and fuel conversion, utilization of food scraps for digestion to recover energy, other waste utilization technologies and creation of nutrient-rich soil amendments through the composting of food scraps; and

E. Land disposal or incineration of food scraps.

2. Guiding principle. It is the policy of the State to use the order of priority in this section, in conjunction with the order of priority in section 2101, as a guiding principle in making decisions related to solid waste and organic materials management.

Appendix C – Recent progress in the management, reduction and recycling of solid waste

Strategies in 2014 report aimed at changing the management of food wastes, CDD wood and other problematic wastes to management methods higher up Maine's solid waste management hierarchy, and to improve data collection at both the state and local levels. Accomplishments include:

- Adoption of the Food Recovery Hierarchy -PL 2015, c.461

- Support for food scrap composting pilot projects – PL 2015, c.461 directed the Department to "develop, implement and administer a food scraps composting pilot program as described in this section." A report on this initiative will be delivered to the Environment and Natural Resources Committee under separate cover.

- Publication of the Guide to Recovering and Composting Organics in Maine. This document provides basic information for those interested in capturing unwanted organics from the waste stream for beneficial use or composting. It includes methods to divert organics from trash, the fundamentals of the biology of composting and various composting systems, the regulations that help guide a program, and numerous related resources. (www.maine.gov/dep/sustainability/compost/compost_guide2016.pdf)

- *10 Steps for School Composting* guide. To date, over 30 schools have requested and received 'on-site' assistance from Department staff in developing and implementing food scrap recovery and composting programs. This guide and other composting resources are available on the Department's website at www.maine.gov/dep/sustainability/compost/index.html.

- Maine Compost Team and the Maine Compost School are related initiatives implemented through collaboration of the Department with the Department of Agriculture, Conservation & Forestry and the University of Maine Extension. The Maine Compost Team has been assisting composters throughout Maine with technical assistance, actively supporting organics reuse opportunities since the early 1990's. In 1997, the Team established the Maine Compost School, to further advance organics management technical skills and understanding, offering a week-long course several times a year. To date, nearly a thousand composters from Maine, New England, other states and nations (including the Galapagos Islands) have attended this school, which is now the longest running compost school in the nation.

- Food scrap collection initiatives & case studies. Department staff have helped various entities interested in composting develop and implement programs in island communities,

farm based operations and institutions, as well as working with generators of unused food to maximum the reuse of that food in accordance with the food waste hierarchy.

Consolidated Collection Centers are facilities that are designed to accept organic discards, including food scraps, to accumulate large quantities for transport to off-site composting or anaerobic digestion facilities. This activity is supported by the Department as part of its increase diversion of food scraps from disposal.

- On-going E&O, technical assistance for composting, including support in establishing Maine Compost Week in 2017. In addition to working with schools, institutions, municipalities and businesses on implementing, expanding or improving their food scrap recovery efforts and composting activities, Department staff regularly respond to requests from various event planners, such as the Children's Water Festival, to provide a presentation or hands-on demonstration of composting.

- Update DEP recycling web page to integrate reduce & reuse strategies & resources. The Department evolved its "Recycling" web page to emphasize "Reduce" and "Reuse" resources and strategies. This includes the on-going development and updating of Maine-focused educational materials.

- The Department completed revision of Beneficial Use Chapter (418), streamlining regulatory oversight to support and facilitate beneficial use of solid waste, including the use of CDD wood as fuel.

- Paint product stewardship program. Department staff provide in-field assistance and educational materials to voluntary collection sites for this state-wide collection program for latex and oil-based paints. The program began in October 2015 following the Department's approval of PaintCare's proposed collection and management program.

- Streamlining of mercury thermostat recycling incentive program. This initiative has resulted in an easier system for HVAC technicians to claim and a receive their $5 incentive for each mercury thermostat they turn in for recycling. The Department provides technical assistance visits to collection sites, and has received unsolicited positive feedback on the new return and claims system.

- Provided municipalities with annual report form that standardizes data elements and methodology for calculating recycling rates. This toll helps municipalities identify whether they have the data they need to understand and track their annual MSW recycling rate.

- Standardized data collection & management for voluntary reporting of recycling activities by recyclable brokers. With the cooperation of most recycling brokers in Maine, DEP is able to develop a statewide recycling rate with a data set that is relatively consistent from year to year.

- Developed guidance and provided technical assistance to communities to help develop emergency annual carcass mortality management. This became extremely needed during the summer of 2018 when the Northeast coast experiences a significant and unusual marine mammal mortality event due to distemper.

Appendix D – Comments received on draft report

Arrrrowsic comments

Hi Mike,
I asked our recycling committee to review the plan, and we were pleased to do so. As a small community, we are fortunate to have good educational opportunities and several ways to pass information on to our residents. Our trash and recycling hauler is fantastic, and we work hard to follow current regulations with regards to recycling. We have also done education on composting, and this year's focus is on reducing.
Our big concern with regards to the state plan is lack of public school education on waste management here in Maine. How are we getting the word to students in K-12 schools throughout the state? I work in a school, and there is little effective composting and a lot of wasted resources. It seems that the state needs a serious plan for teaching responsible waste management in our schools.
That is our only feedback for you. Thank you for sending.
Katie Smith, Chair
Arrowsic

Grace Cain comments

Hi,
I am a member of a small grassroots environmental group called the Southern Maine Planeteers. Our group hosts beach cleanups and participates in marine debris monitoring programs. We also organize community outreach programs and zero waste events to engage more community members in becoming stewards of our environment. One of our first outreach programs was led by the marine debris specialist from NOAA. The takeaway from that event was that the top of the waste management hierarchy needs to be refuse and then reduce, reuse, recycle. We see single use plastic waste consistently during our beach clean ups and a subcommittee of our group is working on a Skip the Straw Campaign with our local food and beverage avenues to address this particular waste issue. Placing refuse at the top of your hierarchy would be a great way to get the message across of not using the resources in the first place.
I appreciate all the other components of your plan from encouraging repair kits and tools for lay people, closing the loophole on CDD's, encouraging composting and helping communities to promote recycling by figuring out ways to make it less expensive.
Thank you for the opportunity to comment.
Grace Cain
Kennebunk

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29 Industrial Way
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(207) 825 - 4566

Esoco ORRINGTON, LLC.
Plant Operator

January 31, 2019

Mike Karagiannes
Maine DEP
17 State House Station
Augusta, ME 04333-0017

SUBJECT: PERC Comments on Draft Maine Materials Management Plan (2019 update)

Mike Karagiannes:

The Penobscot Energy Recovery Company LP (PERC), USA Energy Group LLC, and PERC Holdings LLC are pleased to jointly provide comments on the draft Maine Materials Management Plan (Plan) update. As we understand, the scope of the Plan is to identify actions that further the goals of the State of Maine to promote the Solid Waste Management Hierarchy (Hierarchy) and Food Waste Hierarchy.

We applaud the continued effort of the Department to reinforce the State's goals for the management of solid waste in Maine and the efforts to ensure that solid waste management practices achieve the priorities established in the Hierarchy. PERC recognizes the challenges faced by the Department to ensure that when putting forth policies and enforcement rules, these actions do not unduly burden municipalities. Unfortunately, this guiding principal of the Hierarchy has all too often caused solid waste management options to default to the lowest cost provider in conflict with the priorities established in State statute. It is this issue which has generated the following concerns and comments from PERC.

One of the recommendations within the Plan is to impose a fee on landfill disposal of unprocessed municipal solid waste (MSW) at the Juniper Ridge Landfill (Juniper Ridge). The premise of this action would be to increase the price of land disposal to level the financial playing field between the other MSW management options. While the intent of this recommended action would be to encourage the management of waste and materials by options higher up the Hierarchy, most notably, toward waste-to-energy, we at PERC are concerned that the implementation may have many unintended consequences.

Specifically we believe the application of this fee should be extended, at the very least, to the commercial landfills. The selective application of the proposed fee at Juniper Ridge will only create a new and greater financial incentive to direct the MSW away from Juniper Ridge and toward the commercial landfill in Norridgewock as that facility would not be subject to the fee. However, we remind the Department that much of this MSW is contractually and exclusively obligated to the Norridgewock facility and contains a change-in-law provision that would pass this fee onto the various municipalities who are obligated to pay it. Under these circumstances, how could application of this fee redirect waste toward waste-to-energy rather than just shift the balance of waste between landfill facilities?

In addition and more importantly, PERC is concerned that any strategy or policy that may increase the operating cost of the Juniper Ridge Landfill without the concurrent redirection of higher value MSW to PERC, will simply translate into higher fees charged to PERC for ash and residuals disposal. Such a result would serve to further impair the ongoing operation of the PERC facility, and the expansion related to future planned projects associated with our facility.

It is our collective opinion that if the Department considers a fee structure with the aim to maximize processing of MSW and the other solid waste management methods contained in the higher rungs of the Hierarchy, the actions must be capable of achieving the intended diversion goals. This structure should ensure that no existing waste-to-energy operation would be inadvertently penalized. Absent a more comprehensive plan to divert MSW from landfill disposal, the selective application of the proposed fee to only one landfill facility will not lessen landfilling of MSW; rather it will burden the processing ability of PERC by raising our operating costs. This increased cost cannot be borne by the PERC facility alone. The increased costs must be passed through to the customers who have already made the decision and have recognized the financial/environmental trade off of managing their solid waste per the guidelines of the Hierarchy. Ironically, this string of events could very well provide enough pressure on our customers to move to a less expensive, lower priority solid waste management option; Land disposal.

PERC encourages the DEP to expand beyond the scope of the Maine Materials Management Plan and convene a stakeholder group to evaluate the best means to implement an integrated solid waste management system that considers the intricacies of the highly interconnected aspects of the waste management industry. The viewpoints and input from the actual owners and hands-on operators of Maine's solid waste management facilities would prove invaluable for best outcome. As part of this effort, the group could revisit the effectiveness of the current solid waste statutes/policies to advance the most practical and beneficial method of implementation and enforcement of the strategies that are already in place. PERC would very much welcome the opportunity to participate in such a stakeholders group.

We look forward to working with the Department to realize our mutual goals on this matter and would welcome the opportunity to discuss this matter further.

Best Regards,

FOR:

Penobscot Energy Recovery Company, LP
USA Energy Group, LLC
PERC Holdings, LLC

BY:

Henry Lang
Plant Manager
Penobscot Energy Recovery Company

January 31, 2019

Mr. Mike Karagiannes
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: **Maine Materials Management Plan 2019 Update**

Dear Mr. Karagiannes:

Coastal Resources of Maine, LLC (Coastal Resources or CRM) is pleased to provide comments on the draft 2019 update of the Maine Materials Management Plan, State Solid Waste Management and Recycling Plan (the Plan or Update) to the Maine Department of Environmental Protection (DEP or the Department).

Background
Fiberight, LLC and the Municipal Review Committee (MRC) have established a contractual agreement to construct and operate a regional solid waste processing facility in Hampden, Maine. The facility, Coastal Resources of Maine, will accept, recycle and process MSW and single stream recycling(SSR) beginning in the second quarter of 2019. The MRC has entered into agreements with 84 Maine municipalities and regional entities, representing a total of 115 Maine municipalities that are to begin delivering MSW to the Hampden facility in April of this year.

The Coastal Resources facility is the practical application of over a decade of work by Fiberight scientists and engineers to design, build, test and deliver municipal solid waste processing solutions that meet current market demands to increase recycling rates, achieve complete utilization of organics and lower carbon outputs. Located on MRC land and owned and operated by Coastal Resources LLC, the facility will be a state-of-the-art MSW and recycling processing facility, with the largest anaerobic digester of its kind in the State and the capacity to process over 150,000 tons of in-state MSW and single stream recycling into value-added products for the fuel and recovery market in Maine.

Founded on the idea that solid waste management technology could help drive a sustainable “closed loop” or circular economy, Coastal Resources’ use of Fiberight technology will redefine waste as a resource. Offering innovative waste management solutions in a way much more consistent with the State’s solid waste management hierarchy than previously possible by:

- Recovering valuable #1&2 plastics, metals and cardboard for traditional recycling markets;

- Recovering and converting 100% of all discarded food waste into biofuel and other beneficial use materials;
- Offering a processing solution for plastic bags, plastics #3-7, and contaminated recyclables, that have limited or no current market, by recovering the materials and upgrading them into value-added commodities for local markets;
- Producing a marketable clean cellulosic pulp product reclaimed from low value or contaminated mixed paper for sale on the commodities market;
- Increasing the rate of recycling of our partner communities by recovering and recycling up to 80% of materials placed in MSW;
- Producing product pathways for glass and textiles as new value-added products;
- Offering a carbon-negative process that is self-sustaining and does not rely on subsides or incentives; and
- Keeping trucks on the road for less time or off the road altogether and limiting carbon emissions by:
    - combining transportation of incoming MSW and recycling in the same load; and/or
    - processing the materials "in-house" which also eliminates the additional transportation of commodities to other facilities for the same purpose; and
    - focus on local markets for commodities transport.

Coastal Resources' process deconstructs the incoming waste stream and recovers discarded materials and up-grades them into value-added commodities. Our process can best be summarized as follows:

- Inert materials, non-processable and bulky items are removed.
- A state-of-the-art separation system recovers curbside-type recyclables from a mixed waste stream that also includes food waste and other organics.
- Once the recyclables are removed, the remaining waste is pulped. Remaining plastics are separated from pulped organic materials.
- The organic pulp is washed to remove contaminants. The wash water, with high content of soluble organic materials, is sent to an anerobic digester to generate biogas and to clean the water.
- Clean washed pulp can then be used to make cellulose for new paper products or biomass fuel, or can be converted into sugars (which may either be processed into biogas or fermented into biofuels or other chemical products).
- Waste water is handled and reused on-site.

The new advanced solid waste and recycling processing facility will provide an opportunity for our member communities to divert MSW away from conventional landfill disposal and toward the recovery of materials and products. Once recovered, we have the flexibility to process materials "in-house" into higher value products keeping both our

resources and our homegrown products here and helping to close the loop on energy production in the state.

Comments

Coastal Resourses' comments are provided to inform the Department of the potential complementary relationship between the Update and the development of our facility, as well as, promote the long term success of the facility's operations for the benefit of our member communities and the State of Maine's goal to achieve a 50% recycling rate by January 21, 2021.

The Update places a significant emphasis on the composting of biodegradable waste, specifically identifying composting (as defined) as placing higher in the solid waste management hierarchy (Update pg 4) than other activities associated with the recovery and processing of organic wastes, such as anaerobic digestion.

A broader policy approach could be taken by the Department to recognize the benefits of multiple recovery mechanisms in the capture and utilization of organic and food wastes and effectively regard composting and conversion of organic wastes using anaerobic digestion facilities or other to be determined means as *complementary* activities in policy. Such an action would validate the attractiveness and effectiveness of further development of said technologies, such as anaerobic digestion, that converts waste materials to biogas and fuel products (i.e. virgin fossil fuel substitute.)
This practical approach would encourage the further development of new and related industry and technologies to manage food wastes in more rural areas where barriers exist to the achievement of full-scale composting operations.

Also, broadening the terminology surrounding the recovery and utilization of organic waste by placing composting and conversion to fuel on the same rung in the State's Waste Management Hierarchy would bring the State's "pyramid" in concert with the EPA's Food Recovery Hierarchy, also cited in the Update.

The support and maintenance of existing programs coupled with the recognition of new developing industry and/or currently utilized technologies to increase the recovery rate of discarded organic waste and the many beneficial uses thereof serves only to bring the 50% goal closer to achievement.

With the above approach , the Update would reflect a long-term and forward-thinking strategy by the Department for organics management that validates current processing

practices and makes room for the next technological breakthrough that may be just around the corner.

We ask that the Update align the Food Recovery Hierarchy, with the State's Solid Waste Hierarchy so the use of processing, product recovery and anaerobic digestion facilities that can convert organic wastes to products and fuels, such as Coastal Resources are coequal and on the same level of the hierarchy as composting.

We suggest that the Update include a recommendation to clarify and modernize the State's solid waste management hierarchy to be consistent with the DEP and/or EPA Food Recovery Hierarchy as it relates to the items described above.

Coastal Resources is committed to a sustainable future and to improving the economic and environmental well - being of our global community. Our mission is to foster technology that creates more environmentally friendly and economically sustainable processes to recover, recycle and repurpose valuable material found in every day household waste.

Coastal Resources of Maine' leading edge process, coupled with existing local programs, is how we finally reach a 50 percent or more recycling rate as Fiberight's technology supports Maine's solid waste hierarchy to a much greater extent than possible over the past 30 years. This is accomplished by providing a new regional, single-stream recycling and advanced organics processing facility to support local recycling and existing infrastructure.

Thank you for consideration of these comments.

Sincerely,

Craig Stuart-Paul

President, Coastal Resources of Maine, LLC

Copies:

MRC Board of Directors
Greg Lounder, Executive Director, MRC

2019 Maine Materials Management Plan

Please accept these comments on the draft 2019 Maine Materials Management Plan (MMMP), DEP's once-every-five-years evaluation and recommendations for waste handling in Maine. My basic reaction is one of support. The overall goals of diverting materials from landfill disposal and heightened awareness of compliance with our Waste Hierarchy are necessary lest we become trapped by our own negligence and become the dumping ground for New England, with later generations left to deal with the negative consequences.

Last week I took part in an open house/meet and greet event hosted by the Environment and Natural Resources Committee (Jan. 23rd, 2019). In my 2 minutes I praised the 1989 Maine legislation that banned future commercial landfills in Maine but lamented the fact that there was no development of rules for future state-owned landfills. In the vacuum of regulations, the waste industry largely developed their own structure and definitions once the state took ownership of a former paper mill landfill in Old Town in 2004. In the MMMP DEP rightly expresses concern that the amount of materials into our Juniper Ridge Landfill (JRL) has increased by roughly 50% above early projections. There is currently no limit to the gross volume of wastes into JRL, which in my opinion was a major mistake.

Conserving landfill capacity could mean that the current expansion volume at JRL should last indefinitely. There is a serious obstacle to implementing landfill diversion policies in Maine, which is that JRL's operator, Casella, does business throughout the Northeastern United States and is facing closure of other landfills in New England, notably in Southbridge Massachusetts. They see JRL as their cash cow where wastes banned from Massachusetts landfills (construction and demolition debris and organics, etc.) should flow. Many people have commented to me that "Why should we make the effort to reduce and recycle our Maine wastes when this just gives Casella more space for Mass. trash?".

DEP's MMMP rightly identifies "processing facilities" in Maine as conduits for Out Of State (OOS) wastes, mostly construction and demolition debris (CDD). There are loopholes in Maine regulations and definitions that allow residues from processing facilities located in Maine but originating beyond our borders to be counted as "Maine generated waste" and thus eligible for disposal at JRL. Compounding the absurdity of this situation is that over 100,000 tons of this OOS waste comes to JRL and is labeled as "fines for daily cover" and classified as "recycled material". DEP is correct in stating on Page 9:

"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 specificity as to the appropriate use of state landfill capacity."

Community repair cafes, share tables at schools and elsewhere, swap shops at transfer stations and standardized educational messaging are all ideas worthy of support, as is "Right to Repair" legislation. Developing incentives for the future circular economy need to be enhanced by stricter regulations on compliance with our Waste Hierarchy. On Page 12 Section D lays our Strategies and actions to reduce disposal. These should all be adopted. Fees may need to be imposed to discourage violations of Waste Hierarchy such as depositing unsorted MSW into landfills. How much of a fee would be needed to slow the hundreds of thousands of tons of OOS waste flowing to JRL, mostly CDD?

Aside from imposing fees for non-compliance with steps on the Hierarchy ladder, what can be done to implement MMMP's policy recommendations? I am part of a collaborative citizen effort that developed a concept draft LR 1778, An Act to Preserve Landfill Capacity and Encourage Recycling. Part of this proposed legislation would direct DEP to rework definitions of Recycling, Maine Waste, and Bypass. This would mean more common-sense definitions and closing current loopholes allowing tens of thousands of truckloads of waste to enter Maine and be disposed of at our JRL which was supposed to ban such practices. At the ENR meeting Jan. 23rd we offered LR 1778 as a vehicle for achieving many of the goals of the draft Maine Materials Management Plan.

Respectfully yours,

Ed Spencer

January 28, 2019

An Act To Preserve State Landfill Capacity and Promote Recycling

CONCEPT DRAFT SUMMARY

This bill is a concept draft pursuant to Joint Rule 208.

This bill proposes to enact measures to ensure accurate tracking of the origin and type of waste materials disposed of in Maine, to discourage landfilling of recyclable materials, to preserve landfill capacity at state owned facilities for Maine-generated materials, and to ensure the rights of host communities and abutters of waste disposal facilities. In order to achieve these goals, the state shall:

1. Ensure there is accurate tracking and record keeping identifying origin, amounts and types of materials disposed in Maine waste facilities.

2. Ensure waste is effectively tracked from generation point through processing to final disposal point, including the following types of facilities and disposal sites where tracking is required: Landfills; Landfill Leachate Discharge Sites; Incinerator Ash & Slag Disposal Sites; Biosolids disposal sites.

3. Specify that waste materials imported from outside the State of Maine that are processed at Maine facilities shall not be classified as Maine-generated waste.

4. Specify that waste materials that end up in a landfill, such as Construction and Demolition Debris, which are used for daily cover in a landfill, shall not count toward the State's recycling goals.

5. Ensure adequate legal standing and strengthen protections for the health and well-being of people living in close proximity to waste disposal facilities.

6. Strengthen conflict of interest protections in awarding, management and oversight of state waste contracts to prevent price fixing and market manipulation.

7. Direct DEP to make adjustments to chapter 400 definitions of "Bypass", "Recycle/Recycled", and "Maine Generated Waste" in all DEP rules. The definitions are all problematic. On Bypass, eliminate where it says at the end "...and any other reason." Recycle/Recycled: Any material left at a landfill shall not be considered "recycled". Maine Generated Waste is waste where the first point of discard is within the physical confines of the State of Maine

AARON M. FREY
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January 30, 2019

Mike Karagiannes
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: State Solid Waste Management and Recycling Plan 2019 Update

Dear Mr. Karagiannes:

The Department of Administrative and Financial Services, Bureau of General Services ("Bureau"), as the owner of the Juniper Ridge Landfill ("JRL"), hereby submits its comments on the State Solid Waste Management and Recycling Plan 2019 Update ("SWMRP"). We appreciate this opportunity to provide comments and want to share with the Department of Environmental Protection ("DEP") our concerns with sections in the SWMRP that single out JRL for certain recommended management strategies, including possible review of a 30-year contract entered into by the former State Planning Office and Casella Waste Systems in 2004.

I. Section II.B: A Vision for Waste Management in Maine.

"... keeping waste management costs to a minimum for municipalities and taxpayers..."

Some of the proposed strategies and actions proposed in the SWMRP would likely increase solid waste management costs for Maine's municipalities and businesses, such as increased solid waste disposal fees and restrictions on solid waste management alternatives. Inflexible recycling mandates that ignore changing market constraints will add costs to municipal and commercial waste management programs. Restricting waste management options (unprocessed MSW, alternative daily cover materials) at JRL will not necessarily result in wastes being managed higher on the hierarchy, and any increased costs for alternative arrangements will be passed on to the waste generators.

II. Section III.C: Increasing Disposal at Maine's state-owned landfill.

"*...fill rate at JRL has increased by almost 32% since 2012...*"

As noted, P.L 1989, ch. 585, imposed a ban on new commercial solid waste disposal facilities. This ban now appears at 38 M.R.S. § 1310-X. Section 2156-A (2), upon a finding by the DEP that "...6 years or less of licensed and available disposal capacity for municipal solid

waste or special waste remains within the State..." authorizes the construction and operation of a state-owned solid waste disposal facility. 38 M.R.S. § 2156-A (2). By authorizing state ownership of landfills, the state could be a market participant in waste management matters and restrict or prohibit out-of-state wastes from being disposed at a state-owned landfill. A state-owned landfill would be solely operated to provide disposal capacity for Maine generators. JRL always has and continues to be operated as a disposal option for only Maine municipalities and businesses.

The SWMRP provides a chart of municipal solid waste ("MSW") generation and recycling rates v. Maine GDP to demonstrate that MSW disposal rates have remained relatively flat with fluctuations in GDP over the past 5 years. We suggest it would be helpful to separate out construction and demolition debris ("CDD") wastes and compare disposal rate trends of that waste category over the same period. At JRL, mixed CDD waste disposal represents a significant portion of the various waste streams handled at the facility each year and may be a better benchmark than comparing MSW disposal and GDP trends. Maine residents and businesses will likely invest in new construction and renovations with improving economic growth, and CDD waste disposal will increase accordingly. In fact, that has been the trend at JRL over the past several years. Mixed CDD rates at JRL increased by 81,000 tons from 2012 to 2017, a 35% increase. Mixed CDD disposal rates at JRL in 2017 totaled 231,329 tons, which represent the largest single category of wastes handled at the facility.

The SWMRP also highlights CDD fines disposal at JRL (primarily from the ReEnergy processing plant in Lewiston) as a growing concern. This material is used as alternative daily cover, which otherwise displaces virgin soil that would need to be substituted if CDD fines are restricted. There would be no savings in landfill capacity volumes if CDD fines use were to be reduced. In fact, CDD fines rates handled at JRL decreased from 153,000 tons in 2013 to 147,000 tons in 2017.

III. Section IV.D, Strategies and actions to reduce disposal.

"...restrictions on disposal of un-processed MSW in state-owned landfills..."

Recent licensing decisions by DEP and the Board of Environmental Protection ("BEP") currently cap disposal of un-processed MSW at JRL to no more than 81,800 tons per year, which comprised approximately 11% of total waste disposal tonnage received at JRL in 2017/18. (By contrast, un-processed MSW disposal at the Crossroads commercial landfill in Norridgewock is 25% of total solid waste volume received at that facility in 2017- *Waste Management Disposal Services of Maine, Inc, Crossroads Facility, Phase 14 Secure Landfill, PBD Application, July 3, 2018).* The most recent license amendment also prohibits on-going disposal of the 81,800 tons of un-processed MSW at JRL past March 31, 2020, unless the terms and conditions allowing a six-month extension for 40,900 tons per year are met. To complete the picture of MSW disposal, DEP should provide data on MSW disposal rates at all Maine landfills, not just JRL.

"...a fee on MSW disposal in state-owned landfills..."

P.L. 1989, ch. 285, established a $2/ton fee on MSW disposed at a commercial, municipal, regional association or agency landfills. This fee is now set forth in 38 M.R.S. § 2204, and Casella is currently collecting the fee for disposal of MSW at JRL. Section 2204, subsection 4, already authorizes DEP to establish new fees on MSW by rule. This provision has been in place since 2016. Furthermore, if the goal is to incentivize management to options higher on the hierarchy any such new fee should apply to all disposal facilities and not just to state-owned landfills.

IV. Development and Purpose of JRL.

Prior to 2004, the Juniper Ridge Landfill was owned by the Fort James Operating Company. The transfer of ownership from Fort James was negotiated as part of an effort to sustain the viability of Fort James and was made pursuant to legislative authorization for the State Planning Office ("SPO") to "acquire, own and cause to be operated" the Landfill. Resolves 2003, ch. 93. In 2011 the responsibilities of the SPO for the Landfill were transferred to the Bureau and the Department of Economic and Community Development ("DECD"). The Bureau assumed ownership and DECD assumed responsibility for management. There were no provisions in the 2003 Resolve that authorized the DEP to license and regulate the Landfill, or to place any restrictions or limitations on the use of the Landfill, in any manner different from the way it exercises its regulatory authority over other licensed landfills. Any such targeted restrictions or limitation serve only to defeat the public purpose of establishment of a state-owned landfill to meet the waste disposal needs of the State.

In February of 2004, the SPO, as authorized in the 2003 Resolve entered into an Operating Services Agreement (the "OSA") with Casella Waste Systems, Inc. As required in the 2003 Resolve, the OSA obligated Casella to indemnify the State for all liabilities and costs associated with the acquisition, development and operation of the Landfill, including without limitation securing insurance and assuming responsibility for closure, and post-closure activity over a period of 30 years. Casella also paid the State $26,000,000 topo enable the State to purchase the Landfill from Fort James. Accordingly, in all respects, except as statutorily mandated, the Landfill is to be licensed as any other landfill licensed by the DEP. [1]

Notwithstanding the foregoing, the DEP and the BEP, in licensing decisions, has sought to regulate the Landfill in accordance with perceptions and standards not applied to other facilities. As noted earlier, the DEP has imposed limitations on the amount of municipal solid waste that may by disposed at JRL. See Department License #S-020700-WD-BC-A, Condition 10 as revised in Board of Environmental Protection Order #S-020700-WD-BG-Z. (disposal of MSW limited to 81,800 tons through March 31, 2020). To the Bureau's knowledge, DEP has not placed similar limitations on the disposal of MSW at other facilities. The perception that the Landfill is in a special category and to be treated as an asset in trust with the DEP as the trustee is carried forward in the SWMRP. Beginning on page 8, DEP devotes two pages on JRL waste streams, focusing on Fill Rates, changes in types of waste and processed out-of-state waste. It omits any data on other facilities and fails, with regards to MSW, to provide information on what percentage of disposal is MSW at JRL as compared to other facilities. Accordingly, it would

[1] For example, pursuant to 38 M.R.S. § 1310-N (11) solid waste disposal facilities owned by the State "... may not be licensed to accept waste that is not waste generated within the State."

appear to be axiomatic that the SWMRP does not paint a complete picture of the landfill landscape in Maine, which is required in the state plan. 38 M.R.S. § 2123 -A (1) ("The state plan must be based on a comprehensive analysis of solid waste generated, recycled and disposed in the State...").

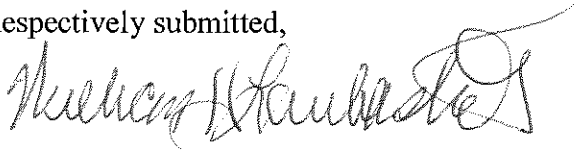
Part IV of the SWMRP, sets forth strategies to reduce, reuse and recycle waste. Under the heading on page 12, "Strategies and actions to reduce disposal," the DEP once again focuses its attention on JRL, suggesting possible legislative initiatives "...to better align landfill operations and economic incentives with managing wastes in accordance with Maine's Solid Waste Management Hierarchy."). There is no explanation as to why such "strategies and actions," such as restricting disposal of unprocessed MSW, restricting amount of disposal of processed waste, and imposing a fee on disposal to promote waste-to-energy disposal do not apply to other facilities.

Most troubling, however, is the proposed review of the OSA "...to identify updates needed to reflect current conditions and to better align provisions with [the]...Waste Management Hierarchy."[2] First, the OSA is a contract between the Bureau and Casella Waste Systems and not subject to review by the DEP, a co-equal executive department agency. Second, since the OSA requires Casella to operate the facility in accordance with applicable laws, regulations, licenses and permits, there can be no question that it is aligned with the Waste Management Hierarchy and other license requirements.[3] Third, if the proposed review is to be by the legislature, the proposal raises potential and serious constitutional separation of powers issues.

V. Conclusion.

While the Bureau appreciates the challenges posed by managing waste disposal and promoting the waste management hierarchy, the 2019 update of the waste management and recycling plan, in our view misses the mark by spending too much time on the Juniper Ridge Landfill and not treating this state-owned landfill as just one piece in the state-wide waste disposal landscape.

Respectively submitted,



William H. Laubenstein III
Assistant Attorney General
Counsel
Department of Administrative and Financial Services

[2] The DEP cites here, too, 5 M.R.S. § 1783, Lease of State Owned Facilities, which applies to the leasing of property for the use of state agencies and has no application to the ownership or operation of a state-owned landfill. Furthermore, the Bureau's authority with regards to JRL is to enter into an operating agreement, under terms and conditions to be revenue neutral.

[3] DEP also posits that the dates should reflect "current conditions," but does not explain what is meant by that term.

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January 31, 2019

Paula Clark, Director
Materials Management Division
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Comments on the Maine Department of Environmental Protection's Report to the 129th Legislature, *Maine Materials Management Plan: State Solid Waste Management and Recycling Plan 2019 Update*

Dear Ms. Clark:

Thank you for your consideration of these comments on the Department of Environmental Protection (the "Department")'s 2019 Report to the Legislature regarding *Maine Materials Management Plan: State Solid Waste Management and Recycling Plan 2019 Update* ("the Report"). Conservation Law Foundation ("CLF") is a nonprofit, member-supported, regional environmental organization working to conserve natural resources, protect public health, and promote thriving communities in the New England region. CLF's Zero Waste Project aims to protect New England communities from the dangers posed by unsustainable and polluting waste disposal practices, and to promote programs that reduce, reuse, and recycle materials while saving taxpayers money.

In the interest of brevity, we would like to start by endorsing and incorporating by reference the comments submitted by Natural Resources Council of Maine ("NRCM") on the Report, and would like to expound on some of the points that they made in their letter. We share NRCM's regard for the Department's vision for a creating a more circular economy and system that would reduce costs to Maine's taxpayers. We also agree that specific programs that achieve these goals best should be prioritized by the Department. For instance:

1. **Better collection of data and better metrics.** As NRCM stated, it is important to measure waste generation, recycling, and the real costs associated with disposal in a consistent and accurate manner. Furthermore, if the goal is to create a circular, sustainable economy, then our metric should not be diversion, but decreasing total disposal. Reduction and reuse should be prioritized over recycling. Please see Kate Bailey from Ecocycle's 2017 article, *One Metric to Rule Them All* for more on why measuring pounds per person per year will best meet the Department's aims. ***CLF recommends that the Department set goals and metrics that measure disposal of pounds per capita per year.***

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2. **Maine cities and towns need a financial incentive to decrease their waste disposal.** The best way to quickly and efficiently decrease residential waste disposal and save cities and towns money is to implement a program that encourages people to dispose of less waste, such as a Pay-As-You-Throw ("PAYT") program. These programs have been shown to garner tremendous savings for municipalities throughout New England. For instance, a University of New Hampshire report has shown that cities and towns with PAYT programs produce 42-54% less waste than those without them. For a discussion of why counties in Colorado are looking to emulate these successes, see Pay-as-you-throw programs slash the trash. ***CLF recommends that the Department should promulgate statewide PAYT regulations.***

3. **Elimination of Single-Use Plastic.** CLF has recently launched its Plastic Free New England Campaign.
    a. **Plastic is a polluting, toxic, and unsustainable material.** Plastics are polluting at every stage. They are made from petroleum, which is often sourced from fracked gas in the United States. Fracking, refineries, plastic manufacturers, and incinerators all emit dangerous toxic pollution and are all much more likely to be sited in environmental justice communities.

    Even as taxpayers and governments are forced to manage the environmental and social costs and burdens of single-use plastic, the fossil fuel and petrochemical industries plan on sharply increasing the production of plastic. Increases in renewable alternatives such as wind and solar are forcing oil and gas companies to look for new markets in plastic production. In the U.S. alone, over 50 new gas processing and plastic "cracking" plants are in development, which will combined emit 20.5 million tons of *added* CO2 equivalent, or a 30% increase.[1] Most of this capacity will be used to manufacture plastic, including single-use plastic bottles.

    The exponential growth of plastic production and consumption is fueling a pollution crisis in our oceans, communities, and bodies. By 2050, scientists estimate that there will be more plastic in the ocean than fish by weight.[2] As it

[1] Kelly, S. (October 28, 2018). *Why Plans to Turn America's Rust Belt into a New Plastics Belt Are Bad News for the Climate.* Desmogblog.com. Retrieved from: https://www.desmogblog.com/2018/10/28/petrochemical-industry- america-rust-belt-plastics-fracking-climate?fbclid=IwAR3hmco5Dy1hXsP7MvC1f86_-HP4i1v-QndYpwrVYglbyrmh5KstzgKxEME

[2] Wearden, G. (January 19, 2016). *More plastic than fish in the sea by 2050, says Ellen MacArthur.* The Guardian. Retrieved from: https://www.theguardian.com/business/2016/jan/19/more-plastic-than-fish-in-the-sea-by-2050-warns-ellen-macarthur

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breaks down, plastics break into microplastics which can do long-lasting harm to living organisms (including humans) and are now ubiquitous in the environment.[3]

b. **Recycling alone will not reduce plastic pollution.** Increasing access to recycling and educating Maine's residents about how to recycle are important steps for the state to take. However, more recycling is not the solution to the plastic crisis. Due to their chemical makeup, many plastics are not recyclable. In a single-stream system, loose caps, nips, filmy plastic, and cartons coated in plastic are not recyclable, and should either be banned or redesigned. Additionally, China recently stopped accepting most non-Chinese recyclables, including mixed plastic, which has exposed the failures of the single stream system as the non-recyclable nature of most plastic is brought to light in the real cost of management.[4]

   Further, Maine already recovers a significant percentage of recyclable plastic beverage containers through the Beverage Container Redemption Program (Bottle Bill). No state-generated data exists to track the rate of return, but the Maine Beverage Association has reported an 84% redemption rate for all containers covered under the program.[5] This number includes plastic beverage containers, generally made of polyethylene terephthalate (PET, #1), and is much higher than the national PET recovery rate of 31%. *However, just because plastic beverage containers are recovered does not mean they are turned back into new bottles. The low price of virgin plastic, coupled with the expense of remanufacturing the plastic and the price volatility of recycled plastic makes closed loop recycling of plastic costly.* PET is recovered at the highest rate, yet only 6 percent of recovered PET bottles are remanufactured into new bottles – the rest is "down-cycled" into clothing and carpets, among other products.[6] Those products are rarely if ever recycled, and instead are sent to landfills or incinerators for disposal.

c. **The Department should support legislation and regulations to reduce plastic and improve recycling for single-use plastic.** Presently there are bills filed, or being filed, in Maine to ban plastic grocery bags, straws, polystyrene, plastic foodware, balloon releases, etc. Legislators in Maine are also considering ways to

[3] Perelman, J. (April 4, 2016). *Pesky Plastic: The True Harm of Microplastics in the Ocean.* National Geographic. Retrieved from: https://blog.nationalgeographic.org/2016/04/04/pesky-plastic-the-true-harm-of-microplastics-in-the-oceans/

[4] Watson, S. K. (June 28, 2018). *China has refused to recycle the West's plastics. What now?* National Public Radio. Retrieved from: https://www.npr.org/sections/goatsandsoda/2018/06/28/623972937/china-has-refused-to-recycle-the-wests-plastics-what-now

[5] Maine law: Maine Dept. of Agriculture, Conservation & Forestry E-mail Communication with Steve **Giguere** 2/27/15; 2017 redemption rate: Letter from Newell Augur, Maine Beverage Association to Maine State Sen. Tom Saviello and Rep. Ralph Tucker, Jan. 18, 2018.

[6] Closed Loop Partners report. (2017). *Cleaning the rPET Stream: How we scale post-consumer recycled PET in the U.S.*

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improve plastic recycling by requiring increased minimum recycled content for plastic bottles and requiring tethered caps, as well as shifting the costs of recycling from the taxpayers onto the producers through a system of Extended Producer Responsibility. ***CLF recommends that the Department support legislation and resolutions to eradicate single-use plastic and improve recycling.***

4. **Maine should adopt a food waste ban.** The State of Maine should adopt a food waste ban to divert large scale food waste producers' food scraps from disposal. That ban could then be ramped up to prohibit any disposal of food scraps or yard waste. This strategy has led to a large increase in investment in infrastructure for composting/anaerobic digestion of food waste in Massachusetts. In Massachusetts, 280,000 total tons a year of food waste (180,000 additional tons since their Commercial Food Waste Ban was adopted in October of 2014) was diverted to composting, anaerobic digestion, feeding animals, and food rescue as of the end of 2017. For more information about Massachusetts' food waste diversion, please see this powerpoint presented by the Department of Environmental Protection of the Commonwealth of Massachusetts. ***CLF recommends that the Department adopt regulations prohibiting the disposal of food waste.***

In conclusion, CLF recommends that the Department:

1. ***Set goals and metrics that measure disposal of pounds per capita per year;***
2. ***Promulgate statewide PAYT regulations;***
3. ***Support legislation and resolutions to eradicate single-use plastic and improve recycling; and,***
4. ***Adopt regulations prohibiting the disposal of food waste.***

Thank you for the opportunity to submit this testimony and for your attention to these important issues. CLF stands ready to answer any questions or supply additional information that the Department may find useful.

Very truly yours,

Kirstie L. Pecci
Director, Zero Waste Project

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Resources

1. *One Metric to Rule Them All,* Waste 360, Kate Bailey, January 13, 2017, https://www.waste360.com/waste-reduction/one-metric-rule-them-all
2. *UNH Research Finds Pay-As-You-Throw Trash Policies Cut Solid Waste Disposal*, November 5, 2018, https://www.unh.edu/unhtoday/news/release/2018/11/05/unh-research-finds-pay-you-throw-trash-policies-cut-solid-waste-disposal
3. *Estimating Treatment Effects of Unit-Based Pricing of Household Solid Waste Disposal*, Christopher Wright, John M. Halstead, and Ju-Chin Huang, Agricultural and Resource Economics Review, 2018, https://www.cambridge.org/core/services/aop-cambridge-core/content/view/BCB860759B12645C695E1C519B61AB9E/S1068280518000023a.pdf/estimating_treatment_effects_of_unitbased_pricing_of_household_solid_waste_disposal.pdf4.
4. *Pay-as-you-throw programs slash the trash*, Allie Gross, January 30, 2019, Jackson Hole News & Guide, https://www.jhnewsandguide.com/news/town_county/article_a53b0451-1a39-5cc7-85ff-c50fb16bc762.html
5. Presentation by John Fischer, MassDEP, February, 8, 2018, https://www.mass.gov/files/documents/2018/02/08/1217-orgupdt_0.pdf

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Municipal Review Committee, Inc.
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January 31, 2019

Mr. Mike Karagiannes
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: **Maine Materials Management Plan 2019 Update**

Dear Mr. Karagiannes:

The Municipal Review Committee, Inc. (the "MRC"), is pleased to provide the following comments on the draft 2019 update of the Maine Materials Management Plan, State Solid Waste Management and Recycling Plan (the "Plan Update") to the Maine Department of Environmental Protection ("DEP" or the "Department")

Background

Founded in 1991, the MRC is a nonprofit association of Maine communities led by an elected, volunteer board of directors. The MRC's mission is to ensure the affordable, environmentally sound disposal of municipal solid waste ("MSW") over the long term on behalf of its member communities.

In furtherance of this mission, the MRC is supporting the development of a facility in Hampden, Maine that will accept, recycle and process MSW beginning in the second quarter of 2019. The MRC has entered into agreements with 84 Maine municipalities and regional entities, representing a total of 115 Maine municipalities that committed to begin delivering MSW to the Hampden facility as soon as April 1, 2018. The Hampden facility will provide an opportunity for all generators of MSW within eastern and central Maine communities to divert MSW away from conventional landfill disposal and toward recovery of materials and products, consistent with the State's solid waste management hierarchy.

The Hampden facility, located on MRC land and owned and operated by Coastal Resources of Maine, LLC ("CRM"), a subsidiary of Fiberight, LLC, will be a state-of-the-art MSW and recycling processing facility, with the largest anaerobic digester of its kind in the State and the capacity to process over 150,000 tons of in-state MSW and single stream recycling into value-added products for the fuel and recovery market in Maine. The facility is a sophisticated high-tech processing and manufacturing facility that uses mixed MSW as its feedstock to produce a

range of products and materials. In addition, we envision multiple opportunities over time for adding more advanced equipment to produce new products, improve diversion rates and reduce residuals generation. Indeed, the facility is not remotely comparable to an incineration facility that simply reduces the volume of waste needing land disposal, and therefore, should be treated at a higher level on the solid waste management hierarchy.

The Hampden facility's process pathway as anticipated to enter operation in 2019 is summarized as follows:

- Inert materials, non-processible and bulky items are removed.
- A state-of-the-art separation system recovers curbside-type recyclables from a mixed waste stream that also includes food waste and other organics. This system insures that recyclables such as paper, plastic and metal are recovered, rather than buried in a landfill.
- Once the recyclables are removed, the remaining waste is pulped. Remaining plastics are separated from pulped organic materials.
- The organic pulp is washed to remove contaminants. The wash water, with high content of soluble organic materials, is sent to an anerobic digester to generate biogas and to clean the water.
- Clean washed pulp can then be used to make cellulose for new paper products or biomass fuel, or can be converted into sugars (which may either be processed into biogas or fermented into biofuels or other chemical products).
- Waste water is handled and reused on-site.

It is our expectation that the facility will keep Maine's resources and homegrown products in Maine and help produce energy in several forms for use in Maine. Further, the MRC expects that the facility will allow member communities to raise their recycling rates and will offer the best chance for our members to meet and exceed the State's recycling goals. We anticipate that the Hampden facility, when fully operational, will divert up to 80% of the incoming MSW from landfill disposal through recovery of recycled materials or products or conversion to biogas, biomass fuels or other saleable products.

The MRC's comments on the Plan Update are provided to inform the Department of the potential relationship between the Plan Update and the development of the Hampden facility, as well as its successful operation over the long term.

Comments

The Plan Update places a significant emphasis on composting of biodegradable waste. Specifically, it identifies composting (defined as the transformation or organic wastes into a soil amendment) as placing higher in the solid waste management hierarchy than technologies, such as anaerobic digestion, that convert waste materials to biogas and fuel products (thus creating substitutes for virgin fossil fuels). (Plan Update at page 4.) The Plan Update asserts that "the amount of benefit decreas[es] with each drop along the hierarchy." *Id.* This is not consistent with the Food Recovery Hierarchy, also cited in the Plan Update, which places composting and

conversion to fuel on the same rung. Moreover, the Department's own "*Guide to Recovering and Composting Organics in Maine*," cited in Appendix C, places utilization of food scraps for digestion to recover energy and the creation of nutrient-rich soil amendments through the composting of organic wastes on an equal footing. MRC regards composting and conversion of organic wastes using anaerobic digestion facilities as *complementary* activities.

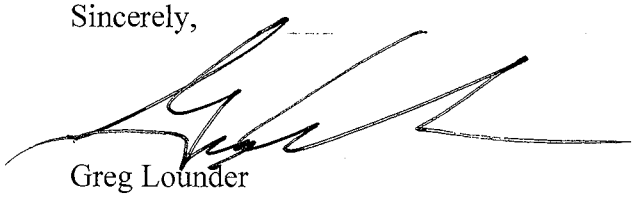
An aspect that is not given due consideration in the Plan Update is the question of transportation. While in more densely populated areas, transport of organics can be conducted in an efficient manner, this is not often the case in MRC's communities in central and eastern Maine, which are significantly more sparsely populated and dispersed than communities in developed areas of southern Maine. The Hampden facility will provide infrastructure for recovery of organics for conversion to high-value products year-round from incoming mixed waste without the need for development of a separate network for collection and transportation of organic materials to composting facilities. As a consequence, the Hampden facility will avoid the carbon emissions associated with systems for dedicated collection and transportation of organic materials, as well as avoiding methane emissions from organics that would otherwise not be collected separately and be disposed of in landfills. As a practical matter, the Hampden facility will serve as an outlet for processing organic materials from rural communities on a year-round basis that would not otherwise send organic materials to composting facilities, and will do so in a controlled environment. Note that MRC communities using the Hampden facility will continue to have programs for appropriate uses of materials before they enter the waste stream, such as diversion of unused edible food to those in need and home composting programs. These waste reduction programs compliment rather than conflict with the efficient and economic operation of the Hampden facility.

We ask that the Plan Update clarify that, as indicated in the Food Recovery Hierarchy, the use of processing, product recovery and anaerobic digestion facilities that can convert organic wastes to products and fuels, such as the Hampden facility are at least coequal strategies on the same level of the hierarchy as composting. We ask that the Plan Update consider the benefits of the Hampden facility in avoiding extra transportation and carbon emission impacts of separate collection of organic wastes, and consider the benefits of providing a year-round outlet in a controlled environment for conversion to products of organic materials. We suggest that the Plan Update include a recommendation to clarify and modernize the State's solid waste management hierarchy to be consistent with the DEP and/or EPA Food Recovery Hierarchy as it relates to the items described above.

The MRC is committed to the success of the Hampden facility in furtherance of the MRC's goal of serving the MSW needs of its membership on an affordable, long-term and environmentally sound basis in full compliance with the solid waste management hierarchy. The Hampden facility will support the State's goals of increasing the MSW recycling rate and minimizing the use of landfill disposal.

Thank you for consideration of these comments.

Sincerely,



Greg Lounder
Executive Director, MRC

Copies: MRC Board of Directors
Craig Stuart-Paul, President, Coastal Resources of Maine, LLC

JUNIPER RIDGE LANDFILL

Operated By
NEWSME Landfill Operations, LLC

January 31, 2019

Mike Karagiannes
Maine DEP
17 State House Station
Augusta, ME 04333-0017

Dear Mr. Karagiannes:

Please find attached comments by NEWSME Landfill Operations, LLC on the Draft Maine Materials Management Plan, State Solid Waste Management and Recycling Plan 2019 Update.

Sincerely,

Donald Meagher
Manager of Planning and Development

cc: Paula Clark
David Burns
Kathy Tarbuck
Victoria Eleftheriou

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Comments by NEWSME Landfill Operations, LLC (NEWSME) on the Draft Maine Materials Management Plan, State Solid Waste Management and Recycling Plan 2019 Update

NEWSME provides the following comments on the draft 2019, 5-year update of the State's Solid Waste Management and Recycling Plan (draft Plan). Our comments below correspond to the page numbers of the draft Plan.

As a threshold matter, we note that elements required to be in the State Plan by statute, 38 MRS § 2123-A ("State Plan Contents"), and that were in prior versions of the State Plan, are missing. For example, Section 2123-A, sub-§ 3 requires that the "state plan must identify existing solid waste disposal and management capacity within the State and the potential for expansion of that capacity." This updated information does not appear in the plan. Section 2123-A, sub-§ 4 requires that the "state plan must identify the need in the State for current and future disposal capacity by type of solid waste, including identification of need over the next 5-year, 10-year and 20-year periods." Again, this information does not appear in this 5-year update, even though the State would benefit from this updated information given the significant changes in the industry and in solid waste management (recycling, processing, incineration and landfilling) generally over the span of the last 5 years, especially in the last two years. Curiously, this draft Plan also lacks any of the data that has been supplied in previous Plans on the amount of wastes generated in the State and how they are managed. *See* Section 2123-A, sub-§ 1 ("The state plan must be based on a comprehensive analysis of solid waste generated, recycled and disposed of in the State. Data collected must include...the source, type and amount of waste generated; and the costs and types of waste management employed including recycling, composting, landspreading, incineration or landfilling.") The lack of this information limits the usefulness of the Plan to provide a mechanism to help plan and improve solid waste management in Maine.

Additionally, the draft Plan focuses primarily on the State-owned Juniper Ridge Landfill, to the exclusion of almost every other solid waste management facility in Maine. Since this is an updated waste management plan for the *entire* state, we find the focus on Juniper Ridge odd, disconcerting and misguided.

Our more specific comments follow.

page 2: bullet points summarizing the cornerstones of the 1989 solid waste management legislation: 2nd bullet: in addition to the ban on new commercial disposal facilities, 38 MRS 1310-X also banned the expansion of existing commercial disposal facilities to beyond land that they owned on the effective date of the legislation. With the passage of PL 566 in 2012, The Crossroads Landfill can now expand indefinitely into the future as long as its owner/operator can acquire land; 6th and 8th bullets: recycling was initially mandated; it was changed to a statewide goal in subsequent legislation.

middle paragraph, third line – typo in year of report.

Page 3: The Maine Legislature adopted EPA's waste management hierarchy in 1989. EPA has since revised its hierarchy to recognize the benefits of waste through energy from landfills that beneficially utilize the methane they produce, but the Maine legislature has not yet updated its waste hierarchy to recognize this. This is actually superior to the production of power by incineration of MSW because it is 100% renewable; the majority of power produced by incineration of MSW is the result of combustion of plastic which is made from petroleum. The Maine Public Utilities Commission classifies landfill gas methane as a Class 1 renewable energy source. MSW incineration is not classified as renewable energy.

In addition, anaerobic decomposition in a landfill (the same biology as occurs in an anaerobic digestor) will generate renewable methane from solid wastes, such as treatment plant sludge, that are not acceptable at an MSW incinerator.

page 4: Item B, third line of first and second paragraphs: what does "circular economy" mean? At the end of the first paragraph in this section, the goal of "conserving...landfill capacity to minimize the need for development of new capacity" is limited to "the State's landfill." That goal should apply to every Maine landfill.

page 8: last paragraph, third line should read "MSW generated by municipalities, including residences and businesses, that had been sending their MSW to Maine Energy." Fifth line: Maine Energy ceased operations in December 2012.

page 9: Juniper Ridge Fill Rate Table.

There is no annual disposal limit in the Juniper Ridge Landfill (JRL) permit. Applications beginning in 2003 have consistently estimated 400-600K tons disposal per year. In the most recent permit for the JRL expansion approved by the Maine Board of Environmental Protection, a working assumption for design purposes of 700,000 tons disposal per year was utilized. But disposal rates at JRL (as with every other Maine landfill) are a function of the overall economy and the solid waste generators that choose to utilize that facility. NEWSME, the operator of JRL, does not generate the solid waste that is disposed at JRL.

Total landfill volume (cubic yards) utilization is a function of two factors: tons of waste disposed, and waste compaction achieved. At 700,000 tons per year disposed, and a compaction ratio of .85 tons per cubic yard (the historical experience at JRL), that would equate to approximately 830,000 cubic yards of disposal capacity utilized. While the current expansion license does not limit disposal to that amount, that was the assumption based on current market conditions continuing, during the entire two-year application review process of July 2015 to July 2017.

The table presented on page 9 is a very simplistic picture of what is occurring at JRL, which is distinctly different than at other Maine landfills that accept municipal solid waste (MSW) for disposal. The vast majority (by tonnage) of the waste types disposed at JRL is not MSW. They are wastes that cannot be reduced, reused, recycled, composted, or incinerated due to either lack of technology or lack of capacity. Landfilling is the only feasible management method for these wastes at the current time.

Because this is a solid waste management and recycling plan for the entire state, the information in the table should be presented for every Maine landfill. Information about each Maine landfill should also include and compare:

- The percentage of MSW (the principal waste stream focus of the Plan) to total waste disposed.
- The compaction ratio of each landfill: comparatively, a landfill with a lower compaction ratio than is achieved at JRL is using up more landfill space per ton of waste.

page 9, third paragraph: residues from out-of-state waste processed in Maine have always been treated as Maine waste, going back to the first Waste Generation and Disposal Capacity Report prepared by the Maine Waste Management Agency in the early 1990s. Maine's MSW incinerators (at the time including Maine Energy, which is now closed) and the Lewiston C&D processing facility (formerly KTI Biofuels, now owned by ReEnergy) that were all financed and built in the mid-1980s relied on the ability to accept out-of-state waste and dispose of their residues in Maine as Maine waste. In all likelihood, those facilities would not have been built had their processing residues been regulated as out-of-state waste because their source volume included out-of-state waste. This paragraph suggests overturning public policy practice that has been in place for more than thirty years.

When the "no less than 50%" recycling requirement was placed in statute, the primary solid waste processing facility it applied to was KTI Biofuels. When that bill was being discussed in legislative work session, the provision for the use of processing fines for daily cover and shaping and grading as recycling was proposed by the Department, recognizing that, historically, since the beginning of the Lewiston KTI Biofuels facility in the mid-1980s, processing fines had always been used as alternative daily cover, which was considered a form of recycling.

Elimination of the use of ReEnergy C&D processing fines as alternative daily cover would not save any disposal capacity at JRL. Daily cover would instead need to be accomplished using virgin soil, a natural resource, occupying the same landfill space now being utilized by ReEnergy processing fines. However, the $2 per ton disposal fee now being paid to the Maine Waste Management fund would not apply to virgin soil. NEWSME has demonstrated during previous permitting activities at JRL that the amount of alternate daily cover (ADC) consisting of waste materials including processing fines is consistent with amount of ADC used at similar landfills in the State.

If the State were to limit the use of processing residues as ADC at JRL, one assumes the State would have to ban this practice at other facilities. If this use of C&D fines is not banned at other landfills, then the effect would be a double consumption of landfill capacity; the first by the use of fines as ADC at another landfill, and the second by use of virgin soil at JRL. If the use of C&D fines as ADC at all landfills is banned, the effect would likely cause the closure of ReEnergy, with dramatic reduction in jobs. The result here would be directly contrary to the guiding principles of the Plan:

> * page 4, 2nd bullet from the top of the page: "...the reduction of negative environmental impacts caused by virgin materials extraction."
> * page 4, 5th bullet from the top of the page: "...avoiding environmental impacts associated with extraction of virgin materials from the earth."

The concern expressed in this portion of the report regarding out-of-state waste is at odds with the public benefit determination (PBD) of the Crossroads Landfill expansion just approved in December 2018 by the Department, which PBD expressly allows the acceptance of out-of-state waste. As stated in the December 18, 2018 comment letter submitted on behalf of Waste Management on the draft PBD: "...consistent with constitutional restrictions, the Department may not limit the acceptance of out-of-state waste..." Should it choose to do so, Waste Management could dedicate the entire capacity of its proposed expansion to out-of-state waste.

Consistent with state law, JRL does not accept any out-of-state waste. Yet the focus on JRL in the draft plan, to the exclusion of all other landfills and an evaluation of state-wide disposal capacity generally, is striking.

The Plan fails to address the consequences of modifying the current statutory definition of "waste generated in Maine" on the waste processing facilities in Maine that dispose of their residues at Maine landfills that are prohibited from accepting out-of-state wastes. These include ReEnergy, PERC, ARC, ecomaine, and MMWAC.

If these solid waste facilities can no longer dispose of their processing residues at the current landfills they utilize, what options do they have? At what cost? If the only available option is at a commercial landfill that is not prohibited from accepting out-of-state waste, how does this benefit the hierarchy? If no alternative disposal option is available, would one or more of these processing facilities fail? What is the consequence of that result on Maine's waste management hierarchy?

page 9, fourth paragraph: concern is expressed about significant increases in the amount of C&D being landfilled at JRL. C&D generation is a function of the economy. There is no concern expressed in the Plan, however, about C&D disposed at any other Maine landfill, including unlined municipal C&D landfills, a practice still allowed in Maine. Delivery of Maine C&D to the

Lewiston ReEnergy processing facility is a function of distance, availability of management alternatives (such as unlined municipal landfills), and the cost of those management alternatives. Casella has a contract with ReEnergy through which it delivers C&D to that facility within a defined geographical area.

This paragraph also recommends revisiting the entire topic of "the appropriate use of state landfill capacity."

In 2003, Maine state government conducted a deliberative process to establish the State-owned landfill in Old Town at the then existing generator-owned Fort James landfill. The Legislature enacted a Resolve authorizing the purchase of the landfill on terms "revenue-neutral" to the State. As directed by the Resolve, the Maine State Planning Office (SPO) issued a Request for Proposals (RFP) to select an operator of the State-owned landfill that would provide the funding for the landfill purchase. SPO selected Casella Waste Systems as the landfill operator. Casella and SPO negotiated an Operating Services Agreement (OSA) that was executed in February 2004. Casella paid the $26,000,000 that the State used to purchase the landfill in reliance on the rights and privileges it was entitled to under the OSA.

The State Landfill (JRL) was purchased (at no cost to the State; on a revenue-neutral basis as required by the Resolve) for the use by the people, municipalities, and businesses of Maine. There are many provisions in the OSA that are distinct from how a commercial landfill would operate, including: price caps; no discrimination of 3rd parties allowed, and a prohibition on waste generated outside Maine. What will happen to the prices waste generators that currently use JRL pay if artificial limits beyond what was contemplated in the OSA are imposed and they must find alternative landfill disposal options?

Neither the Resolve, SPO's RFP, nor the OSA prohibits the disposal of MSW at the State-owned landfill. There is no environmental reason to prohibit the disposal of MSW at a secure landfill, such as JRL, provided it is done consistent with the State's Waste Management Hierarchy, since this practice is approved at a number of other secure landfills in the State.

The recommendations in the draft Plan apparently would have the DEP and the Legislature ignore the entire 2003 process and deprive Casella its rights under the OSA. The parties to the OSA are Casella and the State of Maine. The OSA has as term of 30 years. If the State of Maine, through an state agency such as the DEP, or the Legislature, half-way through the term of the OSA, can unilaterally ignore rights and obligations in a contract the State has entered into, what is the purpose of the contract? Why would private sector parties enter into a contract with the State if State government can unilaterally ignore or negate any of the provisions of the contract?

page 11, first bullet: NEWSME strongly supports efforts by State government to implement beneficial use opportunities for solid wastes that are currently being landfilled. We recommend

that mattresses and carpet be added as waste streams to be pursued by the Plan. The Department has opposed previous legislation proposing to divert mattresses and carpet from landfilling. NEWSME testified in support of that legislation.

page 12, second to last bullet in Item C: See discussion above on C&D processing facilities and the recycling use of processing fines from those facilities as ADC.

page 12, Item D. As noted above, the Plan singles out JRL as the only Maine landfill being addressed. All of the concerns expressed here apply to any Maine landfill regardless of ownership status. There is no environmental or policy basis for selectively regulating the state-owned landfill in this Plan or otherwise. All of the bullet items listed in Section D should apply uniformly to all Maine landfills. There is no hierarchy of landfills based on ownership in Maine's waste management hierarchy. By statute, it applies equally to all.

The only purpose for state ownership of Maine landfills in the 1989 Title 38 legislation was to phase out the two existing commercial landfills that existed at the time because of the constitutional limitations on restricting out-of-state waste (see discussion above regarding the Crossroads Landfill expansion). Casella's commercial Pine Tree Landfill in Hampden was closed in 2009. However, the public policy of also phasing out the Crossroads Landfill, the sole remaining commercial landfill in Maine, was curiously abandoned with the enactment of PL 2011, c. 556 (LD 879, An Act to Ensure Adequate Landfill Capacity in the State for Solid Waste), when the only remaining commercial landfill in the state, Crossroads, was allowed to expand onto contiguous property it owns or acquires. No such accommodation was made for any other landfill.

Regarding the 1st bullet, 4th sub-bullet in Section D, the draft Plan fails to note that Casella Waste Systems/NEWSME, through its Pine Tree Waste (PTW) hauling division, is currently the largest supplier of MSW to the PERC incinerator (approximately 130,000 tons per year). JRL provides an environmentally safe facility for the disposal of PERC residues on a cost-effective basis. NEWSME is not aware that any other Maine landfill is diverting any MSW to a Maine incinerator to avoid landfilling. In addition, PTW has contractually committed to provide the Fiberight facility in Hampden with 40,000 tons per year of Maine MSW when that facility begins operating.

page 6, footnote 2, and Appendix C:

Comparison of DEP published information and Casella-collected data indicate that Casella initiatives comprise nearly 50% of the stated Maine total tons of MSW recycled year-over-year, depending on how DEP calculates the MSW recycling rate.

Most notably, during Leslie Anderson's tenure as the Director, Bureau of Remediation and Waste Management, she was made aware of this potentially missing information, and requested her summer intern discuss this with Casella. Casella provided the Department with Casella's recycling

and brokerage totals, and also provided contact information for other Maine recycling facilities and brokerage organizations so that the Department could follow up with others in the industry. While Appendix C, page 20, of the report indicates that progress has been made in regard to "Standardized data collection & management for voluntary reporting of recycling activities by recyclable brokers," Casella has not found that to be the case. We also note that this goes to the very heart of another required element of the State Plan, Section 2123-A (1) ("The state plan must be based on a *comprehensive analysis* of solid waste generated, *recycled* and disposed of in the State. *Data collected must include*, but not be limited to, *the source, type and amount of waste currently generated; and the costs and types of waste management employed including recycling*, composting, landspreading, incineration or landfilling.") (Emphasis added.)

Casella voluntarily reports, at the request of Department staff, its significant volume of recyclable materials contributing to Maine's MSW recycling rate, and is asked, numerous times per year, to amend formats and alter data to fit into a seemingly evolving configuration of data organization. On several occasions, Casella personnel have recommended to Department staff that an annual report form be developed to assure that recyclers/brokers are reporting consistent data, and attention be given to requiring reporting information of private entities, but to no avail.

In addition, although Appendix C on page 19 also states that the DEP has "Provided municipalities with annual report form that standardizes data elements and methodology for calculating recycling rates," we note that since the demise of the State Planning Office, only those municipalities with their own transfer stations are required to report anything to the DEP from a waste and recycling standpoint, and the recycling rate calculation within those forms that are submitted is flawed. The Department should develop and implement a reporting procedure to collect annual recycling information from the Maine entities directly involved (the beverage container redemption industry, Casella, ecomaine, MRRA, food waste composters, and anaerobic digestors, and C&D processors) to quantify how much Maine MSW is actually recycled. The DEP website indicates that a new on-line survey has been developed for municipalities to meet solid waste management and recycling progress reporting requirements, but that this is not yet available.

Casella does not believe that DEP is capturing accurate recycling information within the State, and that disclaiming reports with footnotes similar to that found on page 6--"... DEP cannot ensure the completeness of the data"--does little to ameliorate the accuracy of conclusions and recommendations provided within these reports based on a lack of accurate data compilation. As noted earlier, this draft Plan lacks any of the data that has been supplied in previous Plans on the amount of wastes generated in the State and how they are handled. This limits the usefulness of the Plan to provide as a guide to help plan and improve solid waste management in the State.

Finally, the Plan does not address the topic of supra-competitive pricing. However, the occurrence of supra-competitive pricing would be directly contrary to the expressed Vision for

Waste Management In Maine (page 4, Section B, 1st paragraph, lines 5 and 6): "keeping waste management costs to a minimum for municipalities and taxpayers." The potential for supra-competitive pricing most certainly exists due to how the State regulates differently the two landfills, JRL and Crossroads, that serve the entire state. Those differences are, specifically, limits on OBW and MSW at JRL, but not at Crossroads. As previously noted, JRL has tipping fee caps and a 3rd party non-discrimination requirement in the OSA. JRL's competition, the Crossroads Landfill, has neither of these provisions. OBW and MSW generators that are prohibited from using JRL, due to the DEP-imposed restrictions, are then forced to use JRL's competition, Crossroads.

In addition, the strategies in Section D (page 12) will increase the cost of waste management for municipalities and businesses.

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January 31, 2019

Paula Clark
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Maine Department of Environmental Protection
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Augusta, ME 04333-0017

Comments on the Maine Department of Environmental Protection's Report to the 129th Legislature, *Maine Materials Management Plan: State Solid Waste Management and Recycling Plan 2019 Update*

Dear Ms. Clark,

Thank you for the opportunity to submit comments on the Department of Environmental Protection's 2019 Report to the Legislature regarding Maine's Materials Management Plan. The Natural Resources Council of Maine (NRCM) is committed to protecting the integrity of the solid waste management hierarchy and advocating for policies and programs that promote sustainable, resilient, equitable, and efficient materials management strategies in Maine. It is with several decades of knowledge and experience relevant to the laws and programs referred to in this report that we submit these comments.

Overall Plan:

Overall, we are pleased with the five-year plan and the vision for waste management in Maine, but we are also disappointed that specific draft policy recommendations were not included to address some of the most pressing issues. Decisions made during the past eight years have set our state back in regard to waste management, and now we must all *take action* to mitigate the damage done and move forward with policies that set us on a more sustainable course—where our programs are better aligned with the hierarchy and will be more resilient to change.

We agree with the Department's vision for creating a more *circular economy* which, as defined by the Ellen MacArthur Foundation, moves us away from a take-make-waste cycle and instead aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. The role of the government is to catalyze and facilitate solutions that move us in this direction; and reduce the high costs to the public sector and Maine's taxpayers, who currently bear too much of the economic and environmental costs of waste management in Maine.

Specific policy recommendations based on information in the plan:

We are encouraged by the ambitious list of strategies that would help our state to reduce, reuse, and recycle more of our materials, and provide some comments on some of those initiatives below. However, we feel that the explanation of the current trends in solid waste generation and materials management in the five-year plan best showcases the areas in which the Department should place the highest priority:

1. **Maine needs more accurate and complete data to measure the state's recycling and waste generation rates because we can't manage what we can't measure.** Data used in calculating the statewide recycling and diversion rates are based on voluntary reporting by municipalities and others, and a better way to ensure accurate information would be to regularly obtain data from recycling establishments managing reportable recyclable materials generated in Maine. This would also decrease the annual solid waste reporting requirements on municipalities. We encourage the Joint Standing Committee on Environment and Natural Resources (the Committee) to report out a bill to address this important issue; *draft legislation to improve the measurement of solid waste in Maine is attached as Appendix A.*

2. **Maine towns and cities need a strong, immediate, financial incentive for managing waste higher up the hierarchy.** As described in the plan, the current market conditions for recycling and changes in product packaging have resulted in a significant and on-going drop in value of recyclables. As of today, more than 30 Maine towns have abandoned or significantly curtailed their recycling programs as a result—and the towns that have not are paying higher costs to recycle. This current trend highlights the inequity, inconsistency, and fragility of our taxpayer-funded municipal recycling programs, most of which is product packaging materials. We strongly encourage the Department and the Committee to move forward with legislation that would obligate the producers of packaging sold in Maine to assist our towns and cities in managing the waste created by their product packaging. Doing so would provide relief to Maine's taxpayers, ultimately increase our recycling rate, and help move us toward a more circular economy as described in the vision for Maine. *A resolve bill sponsored by Rep. Mick Devin to establish such a policy has been filed.*

3. **Several policies need to be changed to reduce the fill-rate at Juniper Ridge Landfill (JRL).** The Department did a good job describing the series of events and policies that have allowed for out State-owned landfill to be abused. Startlingly, the fill rate has increased by almost 32 percent since 2012, with the amount of landfilled waste in 2017 more than 40 percent higher than the annual maximum amounts anticipated in 2004. This rapid fill rate precipitated the recent and flawed State issuance of permits that allow for landfill expansion and prolonged disposal of municipal solid waste (MSW). Before expanding the landfill, a better approach, more aligned with our waste hierarchy, would be to reduce the fill rate as much as possible. We urge the Department and the Committee to support any policy proposals that limit and deter materials from filling our State-owned landfill, such as:

    a. There is problematic language in 38 M.R.S.A. 1310-N (11), which provides that, in part, "*waste generated within the state includes residue and bypass generated within the state or outside the state, if it is used for daily cover*"… among other

uses. Defining out-of-state waste as in-state waste depending on its use is misleading, and is allowing our State-owned landfill to be the dumping grounds for New England. For instance, in 2013, 88% of the material accepted at the ReEnergy facility in Lewiston was delivered from out of state, and after some processing at the facility, ReEnergy then sent 97% of their material to JRL. Then because of this nonsensical definition of in-state waste, ReEnergy is able to "verify" that no out-of-state waste entered the landfill in their annual reports. NRCM believes that the law needs to be refined to reflect the intent—which is that our State-owned landfills should only accept waste actually generated in the state.

b. As described by the Department on page 9, it's clear that amendments are also needed in 38 M.R.S § 1310-N.5-A(B)(2) to strike that materials being used as *shaping, grading, or alternative daily cover* in landfills from being counted as "recycling." We do not believe that any material that is being buried in our landfills should be considered beneficial or used to pad our recycling rate. This is especially problematic since the generators of the waste being used as alternative daily cover can legally misrepresent their recycling efforts, and they are given a perverse financial incentive to do so by being exempted from paying landfilling fees—this is forgone revenue that helps the state and our municipalities. It's important to note that there are viable options for alternative daily cover that don't fill the landfill—such as a retractable tarp.

c. The Department and the Legislature also need to address the fallout from an unfortunate recent approval of this extension of the license allowing for continued acceptance of 81,800 tons of MSW into Juniper Ridge Landfill. When the State took ownership of JRL it was made clear that no MSW other than bypass would be accepted; and the amendment to accept 81,800 tons was intended to be something of an emergency response to a sudden closure of another facility. NRCM finds that the applicant did not provide a compelling argument concerning existing disposal capacity in the state nor did they provide evidence of taking any actions to move the MSW up the hierarchy. Further, we believe that the applicant should not be rewarded for failure to plan for the expiration of the original license amendment. We advise against any further extensions of this license.

   Also troubling is that the Department describes in the plan that part of the reason for the approval was to allow for near-term uncertainty attributed to the approval of the Fiberight facility. The approval of the Fiberight facility was also ill-advised, and it's not surprising that there is such a long delay in operation of the facility—yet the Department didn't require a contingency plan that would keep MSW out of our landfills in the meantime. This clearly illustrates that poor decisions by the Department beget future poor decisions—and in this case have led to a steady increase of disposal of MSW at Juniper Ridge Landfill. We hope that this trend is reversed in the years to come.

Additional comments on the strategies and actions to be pursued by the Department:

The Department did a commendable job outlining an ambitious list of activities to pursue, and we hope that there will be adequate staffing to tackle each of the strategies listed in section IV. We have a few comments to place emphasis on some, or request for additional strategies to consider below:

- We are pleased to see mention of revising the Environmental Leader (EL) program to include recognition for businesses that reduce their use of single-use plastics. We hope that the this signals a revival of the EL program, which has had major success in helping and celebrating Maine businesses that reduce pollution and greenhouse gas emissions all while improving their bottom line and helping to elevate Maine's signature green tourism brand. The addition of single-use plastics is vitally important, and we encourage the Department to publish additional guidelines and resources to help Maine's citizens, businesses, and institutions move away from single-use plastics and toward their reusable counterparts.

- The Department mentioned exploring new ways to manage waste such that they reduce municipal costs and support the development and operations of efficient recycling systems; with particular focus on packaging materials and also creating standardized messaging for consumers. If done right, the extended-producer responsibility approach to packaging materials would address each of these issues and we hope the Department can use their expertise in this policy approach to champion an extended-producer responsibility for packaging law.

- In section C, the Department briefly mentions pursuing policies for minimum recycled content specifications for purchases made by the State. NRCM would like to underscore the positive impact on the recycling economy of having expanded minimum recycled content laws for certain products sold in the entire state of Maine. For instance, if all garbage bags sold in the US contained just 30% post-consumer recycled content then there would be enough of a market demand for nearly all Polyethylene plastic collected in the US. The Legislature will also be considering a bill that requires an increasing amount of post-consumer recycled plastic in beverage containers, which would bolster the markets for recycled plastic—particularly clean, quality material like that collected from the bottle redemption program.

- In section D, the Department lists a comprehensive array of policy approaches to reduce landfilling, except the removal of the exemptions on waste handling fees paid to the State from landfilling waste was not specifically mentioned. We urge the Department to add this to the list, and support striking the exemptions in Sec. 1. 38 MRSA §2204 as amended by PL 1999, c. 385, §8, and allow for the Department to impose a fee of $2 per ton on any municipal solid waste disposed of at a commercial, municipal, or regional association landfill; then use those funds for supporting Maine's Solid Waste Diversion Grant Program.

- Finally, NRCM believes that the state should adopt an organic waste disposal ban within the next five years, and would like to see some movement in that direction outlined in the management plan. A 2011 study by the University of Maine concluded that as much as 40 percent of our MSW is comprised of organic waste—of which the majority is food scraps. We can look the experience in some of our neighboring states and come up with a policy that is right for Maine. For instance, Connecticut has a ban on sending commercial food waste to landfills, affecting generators of more than two tons of food waste per week to recycle the materials if they are located within 20 miles of a suitable recycling facility. Vermont also has adopted a food scrap ban for large generators, expanding to all food scraps by 2020. In 2014, Massachusetts began implementing a commercial food scraps ban for facilities that generate one ton or more per week, requiring that the waste be donated or recycled to keep it out of landfills. In each instance, these laws have substantially increased the volume of organic waste now being composted, anaerobically digested for energy recovery, or used for animal feed. This is the most transformative and effective type of policy we could pursue to support our Food Recovery Hierarchy and keep food out of landfills in Maine.

Thank you for the opportunity to provide these comments. We request that these comments be submitted to the Legislature with the 2019 report.

Sincerely,

Sarah Lakeman
Sustainable Maine Project Director
Natural Resources Council of Maine

Appendix A: An Act to Improve Measurement of the Management of Solid Waste in Maine

This bill proposes to enact measures designed to:

1. Obtain data from recycling establishments managing reportable recyclable materials generated in Maine to ensure accurate data to assess Maine's statewide recycling rates and diversion of solid waste from disposal; and
2. Decrease the annual solid waste reporting requirements on municipalities.

Title 38: WATERS AND NAVIGATION
Chapter 24: SOLID WASTE MANAGEMENT AND RECYCLING

Section 1. 38 MRSA § 1310-B is amended to read:

§1310-B. CONFIDENTIAL INFORMATION

1. **Public records.** Except as provided in subsections 2 and 3, information obtained by the department under this chapter is a public record as provided by Title 1, chapter 13, subchapter I.

In addition to remedies provided under Title 1, chapter 13, subchapter I, the Superior Court may assess against the department reasonable attorney fees and other litigation costs reasonably incurred by an aggrieved person who prevails in the appeal of the department's denial for a request for information under subchapter V.

2. **Hazardous waste information and information on mercury-added products and electronic devices; chemicals.** Information relating to hazardous waste submitted to the department under this subchapter, information relating to mercury-added products submitted to the department under chapter 16-B, information relating to electronic devices submitted to the department under section 1610, subsection 6-A, information related to priority toxic chemicals submitted to the department under chapter 27, information related to reporting quantities of reportable recyclables marketed under section 2145, or information related to products that contain the "deca" mixture of polybrominated diphenyl ethers submitted to the department under section 1609 may be designated by the person submitting it as being only for the confidential use of the department, its agents and employees, the Department of Agriculture, Conservation and Forestry and the Department of Health and Human Services and their agents and employees, other agencies of State Government, as authorized by the Governor, employees of the United States Environmental Protection Agency and the Attorney General and, for waste information, employees of the municipality in which the waste is located. The designation must be clearly indicated on each page or other portion of information. The commissioner shall establish procedures to ensure that information so designated is segregated from public records of the department. The department's public records must include the indication that information so designated has been submitted to the department, giving the name of the person submitting the information and the general nature of the information. Upon a request for information, the scope of which includes information so designated, the commissioner shall notify the submittor. Within 15 days after receipt of the notice, the submittor shall demonstrate to the satisfaction of the department that the designated information should not be disclosed because the information is a trade secret or production, commercial or financial information, the disclosure of which would impair the competitive position of the submittor and would make available information not otherwise publicly available. Unless such a demonstration is made, the information must be disclosed and becomes a public record. The department may grant or deny disclosure for the whole or any part of the designated information requested and within 15 days shall give written notice of the decision to the submittor and the person requesting the designated information. A person aggrieved by a decision of the department may appeal only to the Superior Court in accordance with the provisions of section 346. All information provided by the department to the municipality under this subsection is confidential and not a public record under Title 1, chapter 13. In the event a request for such information is submitted to the municipality, the municipality shall submit that request to the commissioner to be processed by the department as provided in this subsection.

Section 2. 38 MRSA § 2101-A is amended to read:

§2101-A. DEFINITIONS

As used in this chapter, unless the context otherwise indicates, the following terms have the following meanings.

3. **Bureau.** "Bureau" means the Bureau of General Services within the Department of Administrative and Financial Services as authorized pursuant to Title 5, section 1742.

4. **"Recyclable"** means that term as it is defined in section 1303-C.

5. **Recycle.** "Recycle" means that term as it is defined in section 1303-C.

6. **"Recycling"** means that term as it is defined in section 1303-C.

7. **"Recycling establishment"** means an establishment engaged in marketing, brokering, or purchasing of reportable recyclable materials. Recycling establishment does not include an establishment that directs all its reportable recyclable materials to in-state brokers and purchasers.

8. **"Reportable recyclable materials"** means any of the following categories of recyclable materials that are separated from household, commercial and institutional waste, and that are delivered to a recycling establishment for recycling:

A. Glass;
B. Paper and paper products;
C. Plastic and plastic products;
D. Ferrous metal, including white goods;
E. Nonferrous metal;
F. Textiles;
G. Mixed streams of recyclable materials that include any combination of the materials listed above.

Section 3. 38 MRSA § 2133.7 is amended to read

§2133. MUNICIPAL RECYCLING

7. **Recycling progress reports.** Municipalities shall report bi-annually, on forms provided by the department, on their solid waste management and recycling practices. The bi-annual report must identify the options municipal residents and businesses have for managing solid waste, including any provisions for the separate management of reportable recyclable materials and organics, and the disposal of other municipal solid waste, including construction and demolition debris. . The department shall assist municipalities in developing and tracking their municipal or regional recycling rate by developing a municipal waste stream management assessment model. The model must rely on actual waste data whenever possible, but incorporate default generation estimates when needed. Default generation estimates must incorporate factors such as commercial activity, geographical differences and municipal population.

Section 3. 38 MRSA § 2145 is enacted to read:

§2145. RECYCLING REPORTING

1. A recycling establishment that markets, brokers or purchases reportable recyclable materials generated in Maine shall report annually by March 1st to the department on its recycling of materials from Maine. The report must be on a form provided by, or a format approved by, the department and must include:

A. The business name, location, postal mailing address, physical address, contact person, electronic mail address, and telephone number;
B. The amount of each category of reportable recyclable material received by generator; and

C. The amount of each category of reportable recyclable material shipped by destination.

The report must specify quantities of reportable recyclable materials in tons, broken out by distinct material types to the extent practicable. If quantities are determined using a volume-to-weight conversion formula, the formula must be submitted as part of the report for review and approval by the department. A reporting entity may provide aggregate quantities for multiple locations provided the report identifies each location covered by the report.

The department shall establish reporting guidelines to ensure that reportable recyclable materials are not counted more than once.

2. The department shall keep information submitted pursuant to this paragraph confidential as provided under section 1310-B.

3. The department shall aggregate data contained within reports submitted from recycling establishments under this part for the purpose of determining statewide quantities of reportable recyclable materials that were recycled.

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ESOCO ORRINGTON, LLC.
Plant Operator

January 7, 2019

Mike Karagiannes
Maine DEP
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SUBJECT: PERC Comments on Draft Maine Materials Management Plan (2019 update)

Mike Karagiannes:

We are pleased to provide these comments on behalf of the Penobscot Energy Recovery Company. As an overarching comment, we applaud the general direction of this latest update to the *Maine Materials Management Plan* ("Plan")[1] which accurately identifies the current state of waste management in Maine, and proposes practical suggestions to generally realign with the original legislative intent.

We believe there are opportunities to refine the Plan to divert certain wastes from landfill disposal. In doing so, we believe that there are important distinctions between waste-to-energy, incineration, and processing technologies of which a better understanding could help in this respect. We also believe that certain quantifiable environmental metrics, such as landfill diversion, cross-media impacts and climate change impacts (greenhouse gas emissions) should be applied to weigh available options, not only between, but *within* rungs of the solid waste management hierarchy.

Waste-to-Energy, Incineration and Processing

38 MRS § 2101(1) contains the solid waste management hierarchy, of which there are 6 specific rungs. The 5th rung noted in the Plan update as "waste-to-energy"[2], however actually states:

"Waste processing that reduces the volume of waste needing land disposal, including incineration".[3]

[1] Draft 2019 *Maine Materials Management Plan*, January 2019, https://www.maine.gov/dep/comment/comment.html?id=952942
[2] Pps 3,4, Draft 2019 *Maine Materials Management Plan*, January 2019
[3] 38 MRS §2101(1)(E)

The Plan update appears to split this last rung into 2 options, with "*benefits decreasing*"[4]:

- *Conversion technologies convert waste materials to fuel, creating a substitution for virgin fossil fuels or other fuel types. Anaerobic digestion facilities are a type of conversion technology that can utilize wasted food as a feedstock to produce fuel and valuable by-products for agricultural uses.* [Emphasis added]
- *Waste-to-energy combustion reduces the volume of waste prior to landfilling and generates electricity in the process.*

Within the context of the above split, it is our opinion that waste-to-energy would unambiguously represent a "conversion technology" in that the following is accomplished:

1. Waste-to-energy facilities which employ refuse-derived fuel technology *convert waste materials to fuel*. This fuel is a substitute for other fuels and is regarded as a "renewable" energy source by Maine[5].
2. Waste-to-energy facilities, including the PERC facility, ecoMaine, and MMWAC recover *valuable by-products* from the waste such as ferrous metals. After installation of a post-combustion PERC ferrous system PERC recovers additional ferrous and non-ferrous metals for recycling, accounting for between 10-15% by weight of the ash generated. The upstream environmental benefits from recycling scrap metals are considerable.[6]
3. Waste-to-energy facilities *produce valuable by-products* in the form of usable steam and electricity. During 2017, the PERC facility generated 169,314 MWh or electricity, which is enough to power over 16,000 homes.[7]
4. Waste-to-energy has been referred to as "*resource recovery*" facilities and with good reason as the technology, in the plain language of the Maine Legislature, is the "*conversion of waste to energy*"[8], as also noted by the Department in licensing actions.[9] Therefore the waste-to-energy process is a de-facto conversion technology.

Furthermore, waste-to-energy facilities:

1. Reduce the volume of waste directed for landfill disposal by about 85%.
2. Reduce greenhouse gases compared to landfill disposal. As it pertains to PERC, MRC's consultant estimated that use of PERC avoided the release of >300,000 metric tons of equivalent greenhouse gases that would have been released if the waste had been landfilled[10]. In general, waste-to-energy facilities

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[4] P 4, Draft 2019 *Maine Materials Management Plan*, January 2019
[5] 38 MRS §3210(2)(C)(h)
[6] P 74, Environmental Impacts of Virgin and Recycled Steel and Aluminum, EPA 1976, Contract 68-01-0794 https://nepis.epa.gov/Exe/ZyPDF.cgi/9101LWZP.PDF?Dockey=9101LWZP.PDF
[7] US Electric Energy Administration (EIA), https://www.eia.gov/tools/faqs/faq.php?id=97&t=3
[8] 38 MRS §1705(11): *"Resource recovery" means the recovery of materials or substances that still have useful physical or chemical properties after serving a specific purpose and can be reused or recycled for the same or other purposes and the **conversion** of waste to energy.* [emphasis added].
[9] P1 PERC SLODA license L-011383-05-A-N and subsequent Solid Waste Orders such as S-11383-05-M-M, even as late as 2018 in license S-011383-WG-Y-M.
[10] Environmental reports from George Aronson, https://www.maine.gov/dep/ftp/crossroadslandfill/public-comments/2018_09_13_PERC_Comments_HL.PDF

provide superior greenhouse gas mitigation as compared to landfills[11], and that shifting waste from landfill disposal to waste-to-energy is an effective stabilization wedge to manage climate change impacts.[12]

Incineration facilities do just that: incinerate waste to reduce the volume of waste requiring landfill disposal. We acknowledge that the current regulations do not distinguish between incineration and waste-to-energy, but we believe there should be recognition of the considerable benefits afforded by the waste-to-energy process.

Processing facilities may employ various technologies ranging from sizing/sorting equipment (such as waste wood processors), MRF (such as single sort recycling facilities), through more elaborate conversion technologies proposed to combine MRF, mixed waste anaerobic digestion and fiber/plastic/fuel pellet manufacture.

Each technology employed by the processing facility has its pros and cons, but shares a single regulatory requirement to "*recycle or process into fuel for combustion all waste accepted at the facility to the maximum extent practicable, but in no case at a rate less than 50%*". [13] As noted by the Department in the Plan[14], these processing facilities are allowed to count "*reuse of waste as shaping, grading or alternative daily cover materials at landfills*"[15] to meet the minimum 50% recycling or convert to fuel requirement stated above. This creates the discontinuity under the Maine Solid Waste Management Hierarchy[16] of "recycling" into a landfill.

It is also important to note that certain technologies viewed as conversion technology take the "long road" to produce fuel/products which require more steps and energy input with no discernable environmental benefit above other available technologies. For example, a certain process could make fuel pellets from discarded plastic containers. However this takes a considerable amount of energy to produce with no more benefit afforded than the combustion process employed by waste-to-energy. In fact this process may introduce disproportionate environmental harm regarding generation of waste water along with increased emission of pollutants from combustion of the pellets in boilers or furnaces that are equipped with lesser pollution control equipment than would be found at a waste-to-energy facility. As another example, an anaerobic digestion process using mixed waste organics as feedstock could generate solids and residues with no agricultural value, but instead require landfill disposal[17]. In addition such process could generate of considerable amounts of waste water that would require treatment.

In stark contrast to a mixed-waste facility, anaerobic digestion facilities such as Exeter Agri-Energy, and composting operations such as Garbage-to-Gardens, employ source-separated organic waste. This allows the majority of their residues to be reused in agricultural applications. In the case of Exeter Agri-Energy, methane gas is generated and combusted on-site for electrical generation, and both the digestate and waste water have agricultural value. Both of these facilities represent the intended concept toward a circular economy.

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[11] Bahor, Van Brunt, Weitz and Szurgot, *Life-Cycle Assessment of Waste Management Greenhouse Gas Emissions Using Municipal Waste Combustor Data*, August 2010 (available on request)
[12] Bahor, Van Brunt, Stovall, Blue, *Integrated Waste Management as a Climate Change Stabilization Wedge*, September 2009. (available on request)
[13] 38 MRS § 1310-N(5-A)(B)
[14] P 9, Draft 2019 *Maine Materials Management Plan*, January 2019
[15] 38 MRS § 1310-N(5-A)(B)
[16] 38 MRS § 2101(1)
[17] P 24,25 MRC/Fiberight License S-022458-WK-A-N, July 2016

In this regard, the Department should reconsider a recommendation made within the 2014 update to the *Maine Materials Management Plan* which, while promoting conversion technologies, recommended the Department *"Develop solid waste management regulations specific to the licensing and operation of conversion technologies.*[18]" These regulations may have identified a means to identify and quantify key environmental metrics that would need to be considered and addressed to ensure that the conversion technology would achieve best environmental benefit for Maine.

Miscellaneous Suggested Correction

Page 9:

Although 38 M.R.S § 1310-N.11 prohibits the disposal of waste from out of state in state-owned disposal facilities, it also allows "waste generated within the State" to include "residue and bypass generated by incineration, processing and recycling facilities within the State".

Comment: It is our understanding that bypass containing out of state waste is not allowed to be sent to Juniper Ridge Landfill.

Again, thank you for the opportunity to provide comments on this draft Plan.

Regards,

Henry Lang
Plant Manager

[18] P 11, 2014 *Maine Materials Management Plan*, January 2014 https://digitalmaine.com/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1022&context=dep_docs

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Esoco ORRINGTON, LLC.
Plant Operator

January 31, 2019

Mike Karagiannes
Maine DEP
17 State House Station
Augusta, ME 04333-0017

SUBJECT: PERC Comments on Draft Maine Materials Management Plan (2019 update)

Mike Karagiannes:

The Penobscot Energy Recovery Company LP (PERC), USA Energy Group LLC, and PERC Holdings LLC are pleased to jointly provide comments on the draft Maine Materials Management Plan (Plan) update. As we understand, the scope of the Plan is to identify actions that further the goals of the State of Maine to promote the Solid Waste Management Hierarchy (Hierarchy) and Food Waste Hierarchy.

We applaud the continued effort of the Department to reinforce the State's goals for the management of solid waste in Maine and the efforts to ensure that solid waste management practices achieve the priorities established in the Hierarchy. PERC recognizes the challenges faced by the Department to ensure that when putting forth policies and enforcement rules, these actions do not unduly burden municipalities. Unfortunately, this guiding principal of the Hierarchy has all too often caused solid waste management options to default to the lowest cost provider in conflict with the priorities established in State statute. It is this issue which has generated the following concerns and comments from PERC.

One of the recommendations within the Plan is to impose a fee on landfill disposal of unprocessed municipal solid waste (MSW) at the Juniper Ridge Landfill (Juniper Ridge). The premise of this action would be to increase the price of land disposal to level the financial playing field between the other MSW management options. While the intent of this recommended action would be to encourage the management of waste and materials by options higher up the Hierarchy, most notably, toward waste-to-energy, we at PERC are concerned that the implementation may have many unintended consequences.

Specifically we believe the application of this fee should be extended, at the very least, to the commercial landfills. The selective application of the proposed fee at Juniper Ridge will only create a new and greater financial incentive to direct the MSW away from Juniper Ridge and toward the commercial landfill in Norridgewock as that facility would not be subject to the fee. However, we remind the Department that much of this MSW is contractually and exclusively obligated to the Norridgewock facility and contains a change-in-law provision that would pass this fee onto the various municipalities who are obligated to pay it. Under these circumstances, how could application of this fee redirect waste toward waste-to-energy rather than just shift the balance of waste between landfill facilities?

In addition and more importantly, PERC is concerned that any strategy or policy that may increase the operating cost of the Juniper Ridge Landfill without the concurrent redirection of higher value MSW to PERC, will simply translate into higher fees charged to PERC for ash and residuals disposal. Such a result would serve to further impair the ongoing operation of the PERC facility, and the expansion related to future planned projects associated with our facility.

It is our collective opinion that if the Department considers a fee structure with the aim to maximize processing of MSW and the other solid waste management methods contained in the higher rungs of the Hierarchy, the actions must be capable of achieving the intended diversion goals. This structure should ensure that no existing waste-to-energy operation would be inadvertently penalized. Absent a more comprehensive plan to divert MSW from landfill disposal, the selective application of the proposed fee to only one landfill facility will not lessen landfilling of MSW; rather it will burden the processing ability of PERC by raising our operating costs. This increased cost cannot be borne by the PERC facility alone. The increased costs must be passed through to the customers who have already made the decision and have recognized the financial/environmental trade off of managing their solid waste per the guidelines of the Hierarchy. Ironically, this string of events could very well provide enough pressure on our customers to move to a less expensive, lower priority solid waste management option; Land disposal.

PERC encourages the DEP to expand beyond the scope of the Maine Materials Management Plan and convene a stakeholder group to evaluate the best means to implement an integrated solid waste management system that considers the intricacies of the highly interconnected aspects of the waste management industry. The viewpoints and input from the actual owners and hands-on operators of Maine's solid waste management facilities would prove invaluable for best outcome. As part of this effort, the group could revisit the effectiveness of the current solid waste statutes/policies to advance the most practical and beneficial method of implementation and enforcement of the strategies that are already in place. PERC would very much welcome the opportunity to participate in such a stakeholders group.

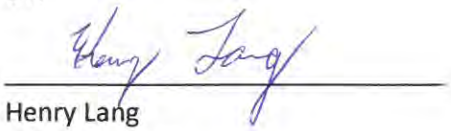
We look forward to working with the Department to realize our mutual goals on this matter and would welcome the opportunity to discuss this matter further.

Best Regards,

FOR:

Penobscot Energy Recovery Company, LP
USA Energy Group, LLC
PERC Holdings, LLC

BY:



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VIA ELECTRONIC SUBMISSION
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January 31, 2019

Mr. Michael Karagaiannes
Office of the Commissioner
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: State Solid Waste Management and Recycling Plan 2019 Update

Dear Mr. Karagaiannes:

Thank you for the opportunity to provide comments on the Draft State Solid Waste Management and Recycling Plan 2019 Update ("Draft Plan"). ReEnergy's Recycling Division owns and operates the State's largest construction and demolition debris ("CDD") processing facility located in Lewiston, recovering approximately 75 percent of the material it processes as recyclables and beneficial use material. The material recovered from wood waste is used as a high-quality fuel to generate renewable energy or in the manufacture of particleboard, and as alternate daily cover ("ADC") at the state-owned Juniper Ridge Landfill ("JRL"). Other recovered recyclables include ferrous and non-ferrous metals and asphalt, brick and concrete ("ABC"). Our mission in ReEnergy's Recycling Division is to maximize the recycling and beneficial reuse of CDD and minimize landfilling through technology. We are extremely proud of the service we provide to the Lewiston region and the State of Maine.

ReEnergy acquired the Lewiston facility from KTI Bio-Fuels, Inc., a subsidiary of Casella Waste Systems, in August 2013. The facility employs up to 45 individuals, varying by season. The facility accepts material from local businesses and the general public; offers free disposal of C&D material and oversize bulky waste ("OBW") to the City of Lewiston; and makes lease and tax payments to the City. The direct benefit to the City of Lewiston is approximately $275,000 annually, not accounting for the facility's indirect support of vendor companies and charitable support of community events.

We wish to share concerns regarding the following elements in the Draft Plan:

On page 9, the Draft Plan states that the Department of Environmental Protection ("Department") plans on "revisiting the provisions that allow processed out-of-state waste into the state-owned landfill and greater statutory specificity as to the appropriate use of the state landfill capacity." Additionally, on page 12 of the Draft Plan regarding the Department's proposed strategies to reduce, reuse, and recycle, it states that the Department will "evaluate implementation of the statuary provision that allows processing facilities to include the use of CDD fines as landfill

shaping, grading and alternate daily cover material when calculating their recycling rate" and evaluate potential legislation regarding "restrictions on the amount of processing waste that can be disposed in state-owned landfills to not exceed 50% of the waste received by the processing facility from Maine."

If the State were to impose the type of restriction contemplated above, the likely result would be the closure of the Lewiston facility and subsequent loss of employment and financial support to the City of Lewiston, as well as the loss of the facility's critical support of the State's solid waste goals.

When we acquired the facility from KTI Bio-Fuels back in 2013, we did so with the expectation that we would have the ability to continue to receive out-of-state CDD for processing and that processed out-of-state waste could be disposed of at JRL. ReEnergy also relied on the knowledge that processed fines could be used for ADC and that such volumes (tons) could be used when calculating the facility recycling rate.

The use of processed fines for ADC eliminates the need to utilize virgin soils and their use as ADC is consistent with a guiding principle of the Draft Plan that calls for "avoiding environmental impacts associated with extraction of virgin materials from the earth." The use of processed fines for ADC is a "beneficial reuse" of the material and is closely aligned with the State's Solid Waste Management Hierarchy to reduce, reuse, recycle, whereas use of virgin soils is not. Furthermore, reducing or eliminating ReEnergy's ability to us fines as ACD would result in a loss of revenue for the State, as ReEnergy currently pays a $2-per-ton disposal fee is paid to the Maine Waste Management Fund for each ton of processed fines used for ADC and/or shaping and grading material.

In keeping with its mission, ReEnergy is currently finalizing a new five-year disposal agreement with the operator of JRL, which we anticipate will provide a long-term disposal strategy for the Lewiston facility. Having a long-term disposal strategy for the Lewiston facility for processed fines and OBW will encourage ReEnergy to continue to invest in new capital in the form of new technology and processes to increase the current recycling rates of approximately 75%. Assuming the Draft Plan as adopted does not present any new regulatory and/or legislative barriers to our business, ReEnergy expects to invest approximately $1.5 million over the next 1-2 years for improved metals (ferrous/non-ferrous) and ABC recovery; as well as implementation of programs for the recycling/recovery of mattresses, carpet, plastics and sheetrock.

We appreciate the opportunity to comment on the Draft Plan and we continue to be committed to playing a critical role with the Department and Legislature in meeting the state's recycling goals and objectives.

Sincerely,

Gregory M Leahey

Gregory M. Leahey
Chief Operating Officer of Fuel and Waste Services Division, ReEnergy Holdings LLC
gleahey@reenergyholdings.com

Copy to:
Paula Clark, Director Materials Management Division
Edward Barrett, City Administrator Lewiston Maine
Senator Nate Libby, Senate District 21