MAINE STATE LEGISLATURE

The following document is provided by the LAW AND LEGISLATIVE DIGITAL LIBRARY at the Maine State Law and Legislative Reference Library http://legislature.maine.gov/lawlib



Reproduced from electronic originals (may include minor formatting differences from printed original)

Report to the Joint Standing Committee on the Environment and Natural Resources

128th Legislature, Second Session

Maine Solid Waste Generation And Disposal Capacity Report for Calendar Year 2016

January 2018

Contact:

George MacDonald, Director Sustainability Unit (207) 287-2870 George.MacDonald@maine.gov



Contents

I Introduction	1
II. Solid Waste Management in Maine - 2016 Highlights	1
III. Generation and Management of Solid Waste in 2016	2
A. Maine's Waste Management and Food Recovery Hierarchies	2
B. Overview of the management of Maine's solid waste in 2016	2
IV. Progress toward Maine's Waste Reduction and Recycling Goals	4
A. Maine's municipal solid waste disposal reduction goal	4
B. Maine's municipal solid waste recycling rate	4
C. Special Wastes and Beneficial Use	6
V. Solid Waste Disposal Capacity	7
VI. Solid Waste Industry Consolidation in 2016	11
VII. Disposal Fees and Supracompetitive Prices	12
A. Disposal Fees	12
B. Supracompetitive Prices	12
Appendix A - Definitions and Acronyms	14
Appendix B - Maine's Waste Management and Food Recovery Hierarchies	15

I Introduction

This report is submitted to the Joint Standing Committee on Environment and Natural Resources and the Governor, pursuant to 38 M.R.S. § 2124-A. It provides an overview of Maine's solid waste generation, diversion, and disposal activities for 2016, and an evaluation of Maine's progress toward our waste reduction and recycling goals. The report 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.

The information in this report can be utilized by policymakers engaged in solid waste management planning at both the state and local levels. Additional background information is available in the *Maine Solid Waste Generation and Disposal Capacity Report: Calendar Year 2015* available at www.maine.gov/dep/legislative/reports.html.

II. Solid Waste Management in Maine - 2016 Highlights

- The total amount of municipal solid waste (MSW) generated in Maine in 2016 was 1,556,711 tons. This tonnage included construction and demolition debris (CDD), and all was managed through various licensed solid waste facilities in 2016. This tonnage is a slight decrease from the total MSW, generated and managed in 2015.
- In 2016, Maine's MSW recycling rate (exclusive of construction and demolition debris) was 36.79%, virtually unchanged from the 2015 rate of 36.76%. Overall disposal of MSW rose slightly from 757,014 to 759,638 tons; the per capita disposal amount also rose slightly from 0.569 to 0.571 tons per person in 2016.
- The tonnage of food scraps and other organic materials reported being diverted from disposal and sent to composting or anaerobic digestion decreased in 2016 compared to 2015.
- Based on the currently licensed and operating disposal facilities and management systems, the disposal capacity for Maine generated MSW and its residual streams remains adequate into the near-term future. This includes three waste-to-energy (WTE) facilities, seven municipally-owned landfills, one active state-owned landfill, and one commercially-owned landfill.

III. Generation and Management of Solid Waste in 2016

A. 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 prior to land disposal, 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 in support 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).

Preventing the generation of waste is at the top of Maine's Solid Waste Management Hierarchy because it provides the greatest environmental benefits. These include efficient use of material and energy resources, and the reduction of negative environmental impacts caused by virgin materials extraction and energy generation processes. Management options below waste reduction on the hierarchy also offer environmental benefits, although to a significantly lesser extent, with the amount of benefit decreasing with each drop along the hierarchy. 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. Composting transforms organic wastes into a soil amendment that increases fertility and soil structure, enabling more productive agricultural production. Anaerobic digestion facilities can also utilize wasted food as a feedstock in its system, increasing the generation of biogas produced and available for capture and use in generating electricity and valuable products for agricultural uses. Conversion technologies convert waste materials to fuel, creating a substitute for virgin fossil fuels or other fuel types. Waste-to-energy combustion generates electricity in the process of thermally reducing the volume of waste prior to its landfilling. Finally, energy can be captured from the gasses generated by the degradation of organic wastes placed into landfills and used to generate electricity or serve as a fuel source for other possible uses.

B. Overview of the management of Maine's solid waste in 2016

Maine's solid waste management infrastructure includes municipal, commercial, and private industrial waste handling services, operations and facilities. Once collected, solid waste in Maine is stored, transported, recycled, processed, composted, anaerobically digested, or beneficially used in place of virgin materials and as fuel, combusted at one of three waste-to-energy facilities, or

landfilled. Table 1 and Figure 1 present a summary of the amounts and disposition of MSW and CDD generated in Maine in 2016.

Table 1 – Amounts & Disposition of Maine-generated MSW & CDD									
Waste type and disposition	Amount in tons	Percent of total MSW & CDD	Percent of MSW	Percent of CDD					
MSW landfilled*	429,098	28%	35.70%						
MSW destroyed through incineration	330,540	21%	27.50%						
MSW recycled	442,218	28%	36.79%						
CDD landfilled	314,649	20%		88.67%					
CDD recycled	40,205	3%		11.33%					
TOTAL	1,556,711								

^{*}This includes 102,878 tons of MSW incinerator ash

40,205

314,649

442,218

330,540

429,098

0 100,000 200,000 300,000 400,000 500,000

Tons

CDD recycled © CDD landfilled © MSW recycled © MSW incinerated © MSW landfilled

Figure 1 – Disposition of Maine-generated MSW & CDD

The data for calendar year 2016 utilized in this report are collected from a variety of sources, including:

■ licensed public and private processing, composting, and disposal facilities' annual reports submitted to the Department (in accordance with 38 M.R.S. §§ 1304-C, 2205, and 2232), and

to other states' regulatory agencies (from out-of-state facilities which receive waste from Maine);

- data on the recycling of electronics, tires, vehicle batteries, consumer batteries, mercuryadded lamps and textiles was obtained through a combination of voluntary and mandatory reports from the specialized businesses that manage these consumer products. This includes data reports required by Maine's product stewardship laws, data from hazardous waste manifests, and voluntary reporting by major collectors of these items; and
- voluntary reporting¹ by commercial entities managing recyclables generated in Maine.

Note that data on backyard, school based, and small, on-farm composting operations is not collected, so cannot be included in the calculation of Maine's MSW recycling rate.

IV. Progress toward Maine's Waste Reduction and Recycling Goals

A. Maine's municipal solid waste disposal reduction goal

In 2016, Maine's statutory goal for waste reduction was amended to focus on the readily-measurable amount of MSW sent for disposal. 38 M.R.S. § 2132(1-B) states:

State waste disposal reduction goal. It is the goal of the State to reduce the statewide per capita disposal rate of municipal solid waste tonnage to 0.55 tons disposed per capita by January 1, 2019 and to further reduce the statewide per capita disposal rate by an additional 5% every 5 years thereafter. The baseline for calculating this reduction is the 2014 solid waste generation and disposal capacity data gathered by the department.

In 2014, Maine generated and sent for disposal (landfilling and incineration) 757,049 tons of MSW, exclusive of CDD. This established the baseline per capita disposal rate at 0.569 tons per person (Maine's estimated 2014 population was 1,330,256).² Maine's per capita disposal rate rose to 0.571 tons per person, a 0.35% increase in 2016 compared to the 2014 baseline year.

B. Maine's municipal solid waste recycling rate

38 M.R.S. § 2132.1 sets Maine's statewide goal for the recycling of municipal solid waste:

¹ The Department is appreciative of the data voluntarily provided by generators/brokers of recyclables and acknowledges the reluctance of others in providing data due to lack of protections from *Freedom of Access Act* requests for information the business may consider as 'confidential business information'.

² U.S. Census Bureau, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF, accessed December 28, 2016

1. State recycling goal. It is the goal of the State to recycle or compost, by January 1, 2021, 50% of the municipal solid waste tonnage generated each year within the State.

In 2016, Maine's recycling rate for MSW exclusive of CDD was 36.79%, virtually unchanged from 2015 (36.76%). Note that the yearly variation in the MSW only recycling rate is likely within a statistical margin of error due to non-participation in voluntary reporting by some recycling brokers operating in Maine. Maine recycled/beneficially reused 11.38% of the CDD generated in 2016.

Maine's MSW recycling rate is calculated by dividing the total amount of MSW recycled and composted by the total amount of in-state generated MSW in accordance with 38 M.R.S. § 2132 (3). This report includes a recycling rate for MSW exclusive of CDD, and a recycling rate for CDD only. This approach allows Maine to perform an "apples-to-apples" comparison with other states' and the national MSW recycling rates which generally exclude CDD, while also enabling Maine to evaluate which parts of the solid waste stream municipalities can focus on to best effect positive changes in diverting materials from disposal.

In early 2017, the Country of China, a major purchaser of recyclables from countries around the world, made a decision known as 'National Sword' in regards to increasing its acceptable standards of recyclables being shipped to China. China notified the World Trade Organization (WTO) of its intention to prohibit the import of certain solid wastes and scrap into their country, including mixed paper and mixed plastics, beginning January 1, 2018. With the gap between domestic processing and market demand of recyclables, the proposed ban could adversely affect municipal recycling programs throughout the country.

In September 2017, China's Ministry of the Environment (MEP) indicated that they are not renewing waste import licenses. A handful of US municipal recycling programs have already begun to adjust the materials they accept in response to the uncertainty created by the pending ban and new contamination standard. Market prices, particularly for paper, dropped significantly in September, with market observers linking that decline to the Chinese actions.

The waste import ban and related issues, including their potential effect on local recycling programs across the United States, were raised in late September 2017 during meetings in China among US Department of Commerce, Office of the United States Trade Representative (USTR), and the US Environmental Protection Agency. To date, China's MEP has been reluctant even to clarify some questions about the affected materials and applicable contamination standards.

As a state, we should be prepared for increased market volatility for the affected materials, though as of this report, the Department has not been made aware of any significant material marketing impacts to in-state recycling facilities or processors. The Department will continue to monitor the situation and the markets, and will assist as appropriate to help keep recycling programs active and successful.

C. Special Wastes and Beneficial Use

Table 2 shows the types of solid wastes other than MSW, CDD and land-clearing debris generated in Maine, and how each waste type was managed in 2016. Much of the material landfilled is managed in generator-owned and operated facilities.

Table 2 – Special Wastes and Beneficial Use									
WASTE TYPE	Compost/ N -Viro*	Beneficial Use	Land applied	Anaerobic digestion	Combusted	Landfilled			
Asbestos/Asbestos Containing Waste	-	-	-	-	-	X			
Ash - Coal, oil and multi-fuel boiler	X	X	X	-	-	X			
Ash - MSW Incinerator	-	-	ı	-	-	X			
Ash- wood & burn pile/hot loads	-		-	-	-	X			
Ash/Liming Agent – Other	-		X	-	-	-			
Catch basin grit and street sweepings	-	X	-	-	-	X			
Contaminated Soils – contam. unknown	-	-	-	-	-	X			
Contaminated Soils - non-petroleum	-	X	-	-	-	X			
Contaminated soils - Oil	-	X	-	-	-	X			
Dredge Spoils	-	X	-	-	-	X			
Fish/Food Process Residue	X	X	X	X	-	X			
Industrial/Industrial Process Waste	-	-	-	-	-	X			
Other Special Wastes	-	-	-	-	X	X			
Pulp/Papermill Sludge	X	X	-	-	-	X			
Sandblast Grit	-	X	-	-	-	X			
Short-Paper Fiber	-	X	-	-	-	X			
Shredder Residue	-	-	-	-	-	X			
WWTP Sludge - industrial		-	X	-	-	X			
WWTP Sludge - municipal	X	-	X	X	-	X			

^{*}N-Viro is a company located in Maine that utilizes a conversion process for treatment of sludge

V. Solid Waste Disposal Capacity

In 2016, Maine's solid waste disposal facilities included three WTE facilities, seven municipally-owned landfills, two state-owned landfills, and one commercially owned landfill. The State has another licensed landfill site, known as Carpenter Ridge, located in T2 R8, that remains undeveloped. That site, with a landfill design for approximately two million cubic yards of special wastes, was acquired by the State in the mid-1990's and is held by the State for development of disposal capacity when needed. The state-owned Dolby Landfill in East Millinocket accepted minimal amounts of solid waste and ceased operations in 2016.

Based on the current operations of the licensed disposal facilities in Maine, and their continued functionalities, the Department projects that disposal capacity for MSW (including CDD) generated in Maine will remain adequate into the near term. This conclusion is based on projections calculated using fill rates and capacity use data reported by licensed facilities in their annual reports on calendar year 2016 activity.

Table 3 shows the current and projected available waste-to-energy (WTE) processing/disposal capacity in Maine, by licensed facility, through 2036.

Table 3 - Available Licensed MSW Disposal Capacity at the three Waste-to-Energy Facilities - as of December 31, 2016									
Waste-to-Energy Facilities Annual capacity (tons/year) Annual capacity (tons/year) Cons/year) Annual capacity (tons/year) Cons/year) Cons/year) Cons/year) Cons/year)									
MMWAC – Auburn	70,000	70,000	70,000	70,000	70,000				
ecomaine – Portland	170,000	170,000	170,000	170,000	170,000				
PERC – Orrington	304,000	304,000	304,000	304,000	304,000				
Total Waste-to- Energy Facility capacity in tons	544,000	544,000	544,000	544,000	544,000				

Table 4 shows the current and projected available landfill disposal capacity in Maine, by licensed facility, through 2036.

Table 4 - Available Licensed MSW Disposal Capacity and Projected Landfill Life as of December 31, 2016									
Landfills	2016 Fill rate (yd³)	2016 available (yd³)	2021 available (yd³)	2026 available (yd³)	2036 available (yd ³)	Years of licensed capacity remaining at current fill rate			
State-owned landfil	ls								
Carpenter Ridge – T2 R8	N/A	not constructed	not constructed	not constructed	not constructed	N/A			
Juniper Ridge – Old Town	744,393	764,104	8,072,439	4,350,474	0	15.8			
Municipal MSW lan	dfills								
Hatch Hill (Augusta)	54,945	759,500	484,775	210,050	0	13.8			
Bath	9,939	432,100	382,405	332,710	233,320	43.5			
Brunswick	8,570	191,070	0 (closed)	0 (closed)	0 (closed)	4.0			
Presque Isle	13,551	1,402,650	1,334,895	1,267,140	1,131,630	103.5			
Tri-Community (Fort Fairfield)	35,561	1,566,047	1,388,242	1,210,437	854,827	44.0			
W-T-E ash landfills	3			•					
ecomaine	17,764	622,422	533,602	444,782	0	35.0			
Lewiston	17,284	513,742	427,322	340,902	168,062	29.7			
Commercial landfill									
Waste Management - Crossroads – Norridgewock	333,585	2,928,509	1,260,584	0	0	8.8			
Total remaining licensed landfill capacity (yds³)	-	9,180,144	13,884,264	8,156,495	2,387,839	N/A			

Available MSW disposal capacity	2016	2021	2026	2036
Annual Waste-to-Energy facility capacity in tons	544,000	544,000	544,000	544,000
Total remaining landfill capacity in tons (MSW*)	7,803,122	11,801,624	6,933,021	2,029,663
Total Capacity for MSW (tons)	8,347,122	12,345,624	7,477,021	2,573,663

^{*}Volume to Weight Conversion Factors, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, April 2016: 1 cubic yard MSW=0.85 tons

In 2016, 1,235,592 cubic yards of landfill capacity in Maine was filled with MSW, CDD, and special wastes, i.e., non-hazardous industrial wastes and wastes requiring special handling (e.g., asbestos). This includes waste from out-of-state sources as well as wastes from Maine, but does not include special wastes disposed of in generator owned landfills affiliated with specific industrial facilities and operations.

Solid wastes generated in other states may be disposed of at the waste-to-energy facilities and the commercially owned landfill in Maine. The disposal capacity at the state-owned Juniper Ridge Landfill is restricted by license condition to wastes generated in Maine, including waste generated by processing or combustion facilities in Maine which may accept wastes from other states. All the MSW disposed of in landfills in Maine was generated in Maine; and approximately 90% of the MSW disposed of through combustion in Maine were also generated in Maine.

In 2016, the Municipal Review Committee, Inc. and Fiberight, L.L.C. received a permit from the Department to develop a new solid waste processing facility designed to accept and manage 650 tons of MSW per day.

Table 5, below, shows the solid wastes received by each of the three currently operating WTE facilities, the percentage by generating state, how the waste was managed, and the various residue streams created.

	Table 5 - 2016 Solid Waste Managed by Maine Waste-to-Energy Facilities (in tons)											
Facility	Total MSW received	Other wastes received	Total waste received	% Maine	% MA	% NH	Waste shipped as by- pass	Front end process residue produced	Metals recycled	Waste combusted	Ash	Waste destroyed through combustion
ecomaine	168,440	16,372	184,812	95.96%	0.00%	4.04%	2,673	N/A	5,101	177,008	43,939	133,069
Mid Maine Waste Action Corporation	77,466	0	77,466	99.83%	0.00%	0.17%	7,327	N/A	1,895	69,632	17,036	52,596
Penobscot Energy Recovery Company	310,444	1,017	311,461	80.94%	17.46%	1.60%	9,549	53,180	7,268	241,464	54,001	187,463
TOTALS	556,350	17,389	573,739	88.33%	9.48%	2.19%	19,549	53,180	72,729	488,104	114,976	373,128

VI. Solid Waste Industry Consolidation in 2016

The Waste Generation and Disposal Capacity Report includes an analysis of consolidation in the ownership of the collection, recycling, hauling, and disposal sectors. This is performed to review Maine's solid waste industry for possible consolidation concerns and the potential for unfavorable impacts on competition. The Department examines these industry sectors for conditions that may either create a decrease in services or a monopolistic situation.

During 2016, Maine's solid waste (or "materials management") industry continued to be a mix of public and private investments and services that daily handled thousands of tons of various types of materials. A review of that system and its components shows the interrelated, and often mutual supporting, services of collection and hauling of recyclables and trash. The processing and disposal of collected materials were provided in a steady and consistent fashion, responding to Maine's solid waste management needs.

Disposal Facilities

During 2016, there were no noted changes in the ownership/operation of the licensed disposal facilities in Maine.

Collection and Hauling Services

The Department did not learn of any significant ownership changes in, or to, service areas of trash hauling providers in 2016, aside from the information provided in the 2015 report, where it was noted that there was marked growth in the development of organics collection services, primarily in the Southern Maine region but extending to selected entities throughout the state, which continues to today.

Recycling Services

Two "materials recovery facilities" (MRFs) (facilities that sort mixed recyclables, aka, 'single stream recycling', into marketable commodities) are now in operation within, and serving, Maine's municipalities and businesses: ecomaine, a non-profit waste management company owned by 21 municipalities based in Portland; and, Casella Waste Services, Inc., in partnership with the City of Lewiston, who converted that city's recycling facility into a 'Zero Sort®' materials processing facility. The number of municipalities participating within each of these 'single stream recycling' programs continues to grow.

The municipalities' transition to single stream recycling has led to the abandonment of many long established 'source separated' recycling programs and facilities that had successfully been baling and marketing recyclables for many years.

VII. Disposal Fees and Supracompetitive Prices

A. Disposal Fees

Disposal expenses are comprised of collection, consolidation and transportation costs, and include tipping fees on the disposal of waste at a facility, with the tipping fee often being a major share of those costs.

Current tipping fees vary at each facility, but generally range from \$40 to \$95 per ton at Maine's waste-to-energy facilities and landfills. While these fees do fluctuate, they have been relatively stable, allowing predictability for municipal budgeting and long-term planning. Many transfer stations impose a fee on municipal solid waste delivered to them, and that fee may reflect the cost of the transfer station's operation, as well as partial or full value of the tipping fee at the intended disposal facility.

Tipping fees at WTE facilities are influenced by revenues received from the sale of the electricity, or other products, that they may generate. The revenues are used to reduce operating expenses, affecting the tipping fee charged for solid waste. Should electricity sales revenue drop, tipping fees may increase; conversely, should the electricity sales value increase, the possibility exists that lower tipping fees, or maintaining current fees, would occur.

The State's operating services agreement with Casella Waste Systems Inc. for the state-owned Juniper Ridge Landfill includes a ceiling for tipping fees, which varies by waste type. This sets an upper limit on how much can be charged for wastes delivered to that landfill.

B. Supracompetitive Prices

Supracompetitive, as applied to 'prices,' means prices that are higher than they would be in a normally functioning, competitive market; usually as a result of overconcentration, collusion, or some form of monopolistic, oppressive practice. State law requires the Department to determine whether changes in the amount of available landfill capacity have generated, or have the potential to generate, supracompetitive prices and if so, provide recommendations for legislative or regulatory changes as necessary.

Currently, the combined and available disposal capacity at all the operating municipal, commercial and state owned landfills within Maine does not appear to have generated, nor does it appear in the near term to have the potential to generate, supracompetitive disposal fees.

In looking ahead, at that point when disposal capacity exists with fewer disposal facilities, or a decline in waste processing capacity occurs, it is possible that prices could become supracompetitive.

Where the actual date and timing of this is not known, nor predictable, it is critical that the Department maintains awareness of this possibility and keeps the Governor and Legislature appropriately informed.

Appendix A - Definitions and Acronyms

The following definitions and acronyms are provided to assist the reader in reviewing this document:

- Beneficial Use to use or reuse a solid waste or waste derived product: as a raw material substitute in manufacturing, as construction material or construction fill, as fuel, or in agronomic utilization.
- Construction/Demolition Debris (CDD) wastes generated by building, remodeling and/or destruction activities and may include such wastes as wood and wood products, concrete and brick, gypsum board, shingles and other common components of buildings.
- Diversion Rate Waste diversion is the prevention and reduction of generated waste through source reduction, recycling, reuse (including beneficial reuse), or composting.
- Front-end Process Residue (FEPR) residual of municipal solid waste resulting from the processing of solid waste prior to incineration or landfilling, and includes, but is not limited to, ferrous metals, glass, grit and fine organic matter.
- Municipal Solid Waste (MSW) solid waste emanating from household and normal commercial activities.
- Special Waste wastes that are generated by 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.
- Supracompetitive when applied to prices means prices that are higher than they would be in a normally functioning, competitive market usually as a result of overconcentration, collusion or some form of monopolistic, oppressive practice.
- Waste-to-Energy Ash residue from the combustion of municipal solid waste at waste-to-energy facilities. It may also contain fly ash from the facility's operation and is designated as a "special solid waste".
- Waste-to-Energy facilities (WTE) facilities which receive municipal solid waste, and through processing and combustion, recover energy and convert it into electricity, while reducing the volume of waste requiring disposal.

Appendix B - 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.

Maine's Solid Waste Management Hierarchy

38 M.R.S. § 2101, Solid Waste Management Hierarchy, establishes:

- 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.

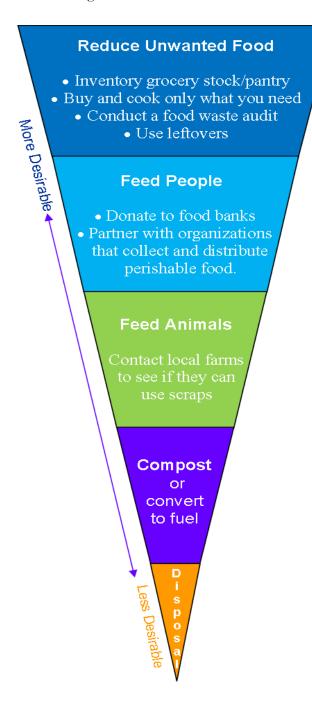
It is the policy of the State to use the order of priority in this subsection as a guiding principle in making decisions related to solid waste management.

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.



Maine's Food Recovery Hierarchy

38 M.R.S. § 2101-B, the *Food Recovery Hierarchy*, was enacted in 2016 to provide additional guidance on the management of food wastes. It establishes:



- 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.