

SECTION 2: SOURCE REDUCTION/REUSE/RECYCLING/COMPOSTING

Under Maine law, the solid waste management hierarchy favors source reduction, reuse, and recycling/composting, in that order, over incineration or landfilling of solid waste.

Source Reduction

Source reduction focuses on preventing waste at the source – minimizing materials in products (reduced packaging is an example) and moving away from single-use, disposable products toward durable, reusable and repairable goods.

Source reduction of solid waste can occur in a number of ways, other than by manufacturers themselves. Consumers can be more thoughtful about whether they need to make a purchase in the first place, and they can make consumption decisions based on the principle of “environmentally preferable purchasing” (EPP). (Again, consideration of how products are packaged is a good example of EPP.) State and local governments as well as businesses and organizations can implement policies regarding their purchases of goods and services. Though none of the above have the ability to directly influence how products are made or packaged, their “pocketbook” decisions can have a significant impact.

Current Status

The Maine Department of Environmental Protection (DEP) offers some basic consumer educational materials that encourage source reduction of solid waste.¹ The state also has an “environmentally preferable procurement policy” for state procurement of goods and services, and Maine law strongly encourages, though it does not require, municipalities to adopt procurement policies that favor the use of goods, supplies, equipment, materials and printing with recycled content and that can be recycled after use.²

There are also nonprofit organizations working in a variety of ways on the issue of source reduction. Two national non-profits, UPSTREAM (formerly the Product Policy Institute) and Recycling Reinvented are working, through their Extended Producer Responsibility (EPR) and

¹ The U.S. Environmental Protection Agency also has educational materials that address this issue.

² 30-A MRSA § 5656

EPP programs, with a host of government and nongovernmental organizations across the country to minimize the negative impacts of manufactured goods and packaging through policy change.

A good example of how local governments can play a role in source reduction through policy initiatives is Portland's decision, effective April 15, 2015, to place a 5-cent fee on single-use carryout bags (both plastic and paper) at food stores, pharmacies and convenience stores, and to ban polystyrene foam (styrofoam) food containers. South Portland recently followed suit. Freeport has long banned polystyrene. Brunswick, Falmouth, Freeport, Topsham and York are all considering measures aimed at plastic bags, and there were several bills in the most recent session of the Maine Legislature to address the issue of plastic bags and styrofoam food containers statewide. Unfortunately, none of them survived.

Recommendation:

The committee has discussed the possibility of bans and/or user fees for plastic/paper bags and styrofoam food containers, but wishes to gather more information on the impacts of such bans/user fees in cities and towns where they have been imposed before making a recommendation.

Reuse

Current Status

Locally there are several “materials exchanges” where folks offer reusable items for sale or for free. Craigs List, Uncle Henry's, and Freecycle are familiar options for consumers. Storefront options for materials reuse include the Maine Building Materials Exchange in Lisbon and Habitat for Humanity's multiple ReStore outlets (Topsham and Waterville are the two closest).³ And of course Goodwill Industries, Planet Aid boxes, and Gardiner's own United Methodist

³ The Maine Materials Exchange in Freeport has been catering to businesses looking for new users for their by-products, used machinery, etc. Unfortunately the program is currently inactive. In the northeast the ReUse Marketplace, a consortium of state materials exchanges, is a free, online regional network to find, sell, trade, or give away reusable and surplus items that would otherwise be disposed as trash. The website is administered by the Northeast Recycling Council (NERC), a regional non-profit dedicated to an environmentally sustainable economy through source and toxicity reduction, reuse, recycling, and green purchasing. Though Maine is a member of NERC, Maine businesses cannot list their goods on the ReUse website because the Maine Materials Exchange did not fit the criteria established by the grant that initiated the ReUse Marketplace. However, anyone can obtain goods listed on the site.

Clothes Closet on Spring St. offer opportunities for folks to donate usable clothing and other items instead of throwing them away. In addition, the state's periodic surplus property sales of vehicles, office furniture, etc., ensure that these items are reused rather than discarded.

In many Maine communities, reuse of items that folks no longer want but that are still reusable is facilitated by what are commonly called "swap shops". The swap shop at the West Gardiner Transfer Station is a good example. Gardiner does not have a swap shop, though it is something that has been requested by community members for a number of years.

Options

1. Open a swap shop

As noted, a swap shop is something that community residents would welcome. However, experience shows that such a facility must be closely supervised to be successful. Otherwise, it would end up being simply a place for folks to unload unusable items that should be recycled or treated as trash. Two options are for the city to operate a swap shop or for the city to find a non-profit organization that is willing to host and supervise such a facility. Either way, one solution to the supervision issue would be for the host of the facility (the city or a non-profit) to use a group of volunteers for supervision. The swap shop would be open only during hours when volunteers were available.

2. Revamp the fall cleanup program

In lieu of an ongoing swap shop, the fall cleanup program⁴ could be restructured to allow residents to take reusable items to a specified location on a once-a-year basis. Anything left after folks have an opportunity to retrieve items from the location would be picked up by the city and treated as trash. Needless to say, such an event would need to be supervised closely.

Recommendation:

The committee is very much in favor of establishing a swap shop in Gardiner. It intends to begin a search for a non-profit or other entity willing to host such a shop. The committee decided that

⁴ The city's fall cleanup program, in which residents, for a fee, put unwanted items at curbside for pickup and disposal, also functions informally as a reuse/recycling program; it is gratifying to see how many items disappear before public works trucks even begin their rounds. No doubt many items are repaired and reused/sold, and many items are recycled (scrap metal, for instance).

revamping the fall cleanup program would add too many complications to the program to make it a viable option.

Recycling

Current Status

At the state level, recycling of items that are not typically picked up curbside has been aggressively pushed through a series of laws that go all the way back to Maine's original bottle bill, which became law in 1975.⁵ Then in 1991, a law was passed that requires retailers that use plastic bags to bag products at the point of sale to provide a receptacle for consumers to deposit used bags and to make sure that those bags are reused or delivered to a plastics recycler.⁶

Since then, Maine has adopted a variety of increasingly stringent "extended producer responsibility" (EPR) or "product stewardship" laws, under which manufacturers must share responsibility for managing their products and packaging once consumers are finished with them. Early laws addressed dry cell mercuric oxide and rechargeable batteries.⁷ Later laws addressed the sale and handling of mercury-containing vehicle components⁸ mercury-added thermostats,⁹ and mercury-added lamps.¹⁰ A separate law addresses mandatory recycling of cell phones.¹¹ One of the most comprehensive of Maine's product stewardship laws focuses on recycling of other electronic waste such as TVs and computers.¹² Given the ubiquitous nature of electronics and the dangerous chemicals they contain, the importance of this law cannot be overstated. Gardiner and surrounding communities are fortunate to have multiple opportunities each year for residents to attend e-waste recycling events.¹³

Maine is one of eight states that so far have decided to participate in a national paint stewardship program offered by PaintCare, an organization of paint manufacturers, for recycling unused

⁵ Over the years, the law has been amended so that it now covers a much wider variety of beverage containers.

⁶ 38 MRSA § 1605

⁷ 38 MRSA §§ 2165 and 2166. Among other things, these laws have resulted in over 600 retail, municipal and business locations where Call2Recycle collection boxes are available for depositing spent, rechargeable batteries.

⁸ 38 MRSA § 1665-A

⁹ 38 MRSA § 1665-B

¹⁰ 38 MRSA § 1672

¹¹ 38 MRSA § 2143

¹² 38 MRSA § 1610

¹³ The Gardiner Rotary and United Way in Augusta both sponsor such events.

paints.¹⁴ The program should be operational in Maine shortly, and will provide a much-needed opportunity for getting rid of latex paint in particular, because latex paint is not accepted by household hazardous waste programs around the state.

In 2013, the Maine Legislature passed a law that sets up a legislative process for designating additional products to be included in the state's product stewardship program.¹⁵ It includes a comprehensive set of planning, education, and collection requirements for the manufacturer of any product designated for the program.

In addition to these product stewardship laws, the state also oversees annual household hazardous waste collection events around the state in order to keep particularly harmful items out of landfills. Gardiner and several other towns and cities in the area participate in the annual event held in Augusta. In addition to pesticides, used oil, oil-based paint and other chemicals, many of the items that are covered by the product stewardship laws such as e-waste and mercury-containing items can be dropped off at these events.

Finally, the DEP and the Carpet and Rug Institute (CRI) have committed to finding ways of keeping carpeting and rugs out of landfills through a pilot project focusing on market-driven reuse and recycling efforts. It will be interesting to see what comes of this voluntary effort.¹⁶

Recycling at the local level, particularly in Gardiner, is a different story. There are effective ways to provide incentives for residents and businesses to recycle more (a pay-as-you-throw program being one of the best¹⁷), but the limiting factor for Gardiner continues to be the lack of recycling options available.

Currently, recycling in Gardiner is an often-confusing mix of options, depending on whether a resident or business obtains a permit to take recyclables to Hatch Hill directly, or, if not, which private hauler one contracts with for curbside pickup. Hatch Hill has traditionally taken a very limited range of recyclable materials (not any plastics except #2 clear, and not any type of fiber

¹⁴ 38 MRSA § 2144

¹⁵ 38 MRSA §1776

¹⁶ According to a CRI announcement, it is attempting to partner with states around the country in order to head off EPR legislation.

¹⁷ PAYT programs most commonly require residents/businesses to purchase special bags for disposal of their trash; the more they recycle, the fewer bags they need to purchase.

other than corrugated cardboard, newspapers, and magazines.) In fairness to small haulers that do not have other reasonably priced options due to distance, Gardiner's hauler licensing ordinance requires that haulers pick up only recycling that can be taken to Hatch Hill. As a result, Hatch Hill permit holders and those that contract with a small hauler for pickup are unable to recycle most plastics as well as fiber-based materials such as junk mail and paperboard (cereal boxes, etc.). Together, these materials, along with food waste, make up a major proportion of most residents' waste stream. (Some of the larger haulers do offer more than the minimum, but none of them price their services in such a way as to create an incentive to recycle. As a result, even their customers do not, on average, recycle nearly as much household waste as they could.)

After a 6-month trial at Hatch Hill during which permit holders could deposit all categories of recyclables, including mixed paper and plastics, in one of three no-sort roll-offs, the city of Augusta has decided to extend that program for another five years. Augusta's curbside pickup program was not included in the trial and will not be included in the extended program – residents must drive to one of the roll-off sites if they want to participate. While Gardiner residents and businesses that have individual Hatch Hill permits may use the no-sort roll-off at Hatch Hill (the other two are for Augusta residents only), our curbside haulers cannot. Thus, the Augusta program provides little improvement in recycling options for Gardiner residents and businesses.

Options

A. A transfer station/recycling center in Gardiner

Pursuant to the City Council's 2012 order, the committee has spent considerable time on the issue of setting up a transfer station/recycling center in the city. There are definitely reasons that such a facility would be beneficial, particularly if it served licensed haulers as well as individual residents and businesses.

The primary advantage of a recycling center in Gardiner is that it would address the problem of inadequate recycling options offered by Hatch Hill. Gardiner's solid waste ordinance could be amended to require haulers to pick up a broader range of recyclable materials once smaller haulers had a convenient place to take them. For the most part, those haulers currently view our recycling pickup requirement, narrow as it is, to be a substantial burden in spite of the fact that

they pay less to Hatch Hill for recycling than for trash and therefore have a financial incentive to encourage their customers to recycle. Much of that burden appears to be the size and configuration of the vehicles small haulers use for curbside pickup – none of them have invested in vehicles that lend themselves easily to keeping trash and recycling separated. Having a recycling center right in Gardiner would ease that burden. Gardiner could offer drop-off service to haulers for free, or it could decide to charge haulers for their recyclables. As long as the fee was no more than Hatch Hill charges (currently \$25 per ton), haulers would benefit.

Of course the biggest deterrent to opening a city-run transfer station is cost; a transfer station would be expensive to build (up to \$1 million or more, depending on the type of facility¹⁸); although such a facility could be built with bond financing, ongoing operational costs would still be an issue. Experience shows that recycling transfer stations must be closely supervised to be successful (which costs money), and employee time would also be required to market the recyclables. Even when recycling markets are at their peak, income from recyclables would not totally finance operations. Given the fluctuation in prices for various recyclable materials, a facility would need to include covered storage space to store collected material when prices for various categories of recyclables are down.¹⁹ West Gardiner uses this technique to maximize its recycling income, which is still quite small.²⁰ Even if Gardiner decided not to process and market the recyclables collected – that is, decided instead to build a facility that would be used simply as a drop-off for recyclables for haulers (as well as residents and businesses that chose to use it rather than rely on curbside pickup) – it would cost money to get someone to haul the material away (as some surrounding communities do²¹); also, supervision costs would remain.²²

Given the city's continuing budget woes, Riverside Disposal's decision to sign a purchase and sale agreement for two lots in the industrial park seemed a more realistic alternative for changing

¹⁸ For instance, the most cost-effective transfer stations have equipment to compact materials in order to minimize transportation costs when the materials leave the facility.

¹⁹ According to Lesley Jones, Augusta's Public Works Director, Hatch Hill charges customers for recyclables (though less than for trash) because it has not set up its facility to store the material when markets are depressed, and there are times when it must pay to get rid of the material.

²⁰ The recycling-related costs of the transfer station are not covered by income from recyclables; however, those costs are more than offset by the reduction in the town's cost for sending trash to PERC for incineration.

²¹ For instance, Hallowell currently spends about \$4000 per year to have recyclables picked up 3 times a week, and it does not get any revenue for the material.

²² Transfer stations are no panacea for encouraging recycling by residents – such facilities tend to be utilized largely by folks who already are onboard with recycling as the responsible thing to do. Research shows that curbside pickup is more effective for getting folks to recycle – i.e., the easier recycling is, the greater number of people who do it. Thus, any transfer station would need to be accessible to haulers who pick up recyclables curbside.

the recycling landscape in Gardiner (and surrounding communities as well). Moving its operations from Chelsea to Gardiner presumably would have allowed Riverside to expand its pilot dual-sort curbside recycling program²³ to cover many more of its Gardiner customers. Since Riverside's customers constitute approximately 76% of the Gardiner residences that contract for curbside pickup, improved recycling rates among those customers would go a long way toward improving Gardiner's overall recycling rates. Unfortunately Riverside determined that a transfer station for recyclables would be cost prohibitive and decided against the expansion. Whether other similar opportunities will come along remains to be seen

B. Use of transfer stations in other municipalities

Several municipalities in the immediate area have transfer stations for recyclables (West Gardiner, Hallowell, Manchester, Pittston and Whitefield, to name a few). West Gardiner does some processing (baling) on-site and markets its recyclables; the other four do not – they simply pay to have the material hauled away. Both West Gardiner and Hallowell accept recyclables from individual residents of other municipalities, but none of the five have the capacity to serve the whole city of Gardiner.

Farther away, there are two transfer stations that are possibilities. The Lincoln County Recycling Center, while primarily serving municipalities in that county, does contract with municipalities outside of the county to take their sorted recyclables. The cost of such a contract varies with the volume of material, whether they or we would provide the transportation, etc. The city would need to provide particulars in order to get a price quote.

The second possibility is the Belgrade transfer station. At its 2014 town meeting, residents voted to allow the town to contract with other towns to use the transfer station. Currently, the only town that has such a contract is Rome. Residents can take sorted recyclables to the Belgrade facility for free; they pay by the bag to take trash there. Belgrade also has a fee schedule for other items such as e-waste, demolition debris, etc. The advantage of Belgrade's facility is that it

²³ Dual-sort recycling is an option in which customers sort their recyclable materials into only two categories/containers rather than several: one category is all fiber (cardboard, newspapers, magazines, junk mail, cereal boxes, etc.) and the other is all containers made of plastics, glass and metal. Dual-sort offers the best of two worlds – it simplifies the process for customers (and therefore encourages recycling) while keeping materials such as broken glass from contaminating valuable fiber. (Contamination is a problem for no-sort/single-stream recycling.)

would not charge Gardiner (or its haulers) to take recyclables (nor would it split income). In fact, because of its small size, Belgrade is often looking to combine its recycling loads with those from nearby communities in order to get better prices for the material. (Since the Lincoln County facility serves so many communities, it does not have that problem.) As with the Lincoln County option, transportation costs would be an issue.

There is one other alternative for Gardiner that would not be cost-prohibitive. The city could build and operate a recycling transfer station if it also took over the direct responsibility for trash collection and disposal (most likely through contract with one or more haulers). Though the city would still need to contract with Hatch Hill or some other facility for disposal of trash, placing the trash collection and disposal function in the city's budget would save individual households substantial money (the money that residents now pay private haulers would more than cover the increase in property taxes). Adding a recycling transfer station to the project would reduce the cost of trash disposal even more by increasing recycling, as is the case in West Gardiner.²⁴ Although recycling transfer stations do not pay for themselves, they are valuable for municipalities that pay for trash collection and disposal out of taxes, because their costs are more than offset by the reduction in transportation and disposal costs for trash.

Recommendation:

Given the city's financial situation, the committee decided that our only realistic course of action, at least for the time being, is to wait for other opportunities to present themselves. A majority of committee members do not favor having the city get rid of our current private hauler system and take over solid waste functions.

Composting

Current Status

Gardiner residents have two options for getting rid of leaves (if they choose not to do their own leaf composting or mow their leaves into their lawns). Hatch Hill Landfill has a leaf composting

²⁴ West Gardiner's transfer station in particular is singled out by many folks who suggest that Gardiner should have one. The primary reasons that the West Gardiner facility is so successful are that a) residents must also take their trash there, so it does not require an extra trip to take recyclables; and b) trash disposal is a town function (trash is hauled by contract from the transfer station to PERC in Orrington), which means that residents see a direct benefit in their property taxes when they recycle, in the form of reduced hauling and incineration expenses.

program available to anyone who wants to use it, at no cost. (It also offers brush recycling.) The resulting compost is given away to anyone who wants it, again at no cost. The second option is that bagged leaves may be placed at the curb as part of Gardiner's fall cleanup program. At one time there was a site in Gardiner where residents could take bagged leaves; that is no longer the case.

Gardiner does not have a composting facility for food scraps or other biodegradable material. Folks with a Hatch Hill permit may take leaves and brush to that facility, but food scraps are largely prohibited. Riverside Disposal, which serves approximately 76% of Gardiner's curbside residential customers, currently has a pilot program for collection of compostable waste, which it takes to Hatch Hill. (Hatch Hill is allowed by DEP under its leaf compost program to include a small percentage of food scraps in the program.) There are also farms in the area that have permits to compost certain types of material. Many of those farms also take food waste to feed to their pigs. In fact, in a recent survey of restaurants and other food establishments in Gardiner, it was surprising to find out that most of them give their food scraps to area farmers. Our focus really needs to be on providing options for residents.

Options

There are two companies in Portland that offer on-site/curbside composting pickup services. A small group of Gardiner folks has met with one of them, We Compost It, to learn about their program and the feasibility of bringing their services to Gardiner. At the time, the company indicated that it was servicing five hospitals, 30 schools, 50 restaurants and some residents from Saco to Brunswick. It quickly became clear that in order for us to offer such a service to Gardiner residents, we would need to get enough establishments such as hospitals and schools on board to make it worth while financially for the company. (We Compost It's actual composting facility is located in Auburn, so it could continue up I-295 from Brunswick to the Gardiner area for pick-up, and take the turnpike to Auburn to compost the material.) It is unclear at this point whether we can make such a program work, but efforts will continue.

The Legislature's Environment and Natural Resources Committee has set up a series of three meetings to help it decide what avenues to pursue with respect to solid waste in the upcoming

legislative session. At the first meeting (which chairman Judy Dorsey attended), it appeared very likely that the committee will focus its attention on composting. Judy will attend the remaining two meetings and follow the issue closely in the Legislature.

Other state involvement in trash disposal/recycling/composting

Judy has also participated (and will continue to do so) in a number of meetings at the state and regional level whose purpose has been to figure out ways to help Maine municipalities solve their waste problems. It remains to be seen whether any of these efforts will come to fruition.