



# Recycling Shakeup Presents Challenges, But It's Still the Right Thing To Do

*BY BROOKE NASH*

**M**ost people are surprised to learn that recyclables are the single largest export commodity from the U.S. by weight. Until January 2018, China was on the receiving end of approximately 12 million tons of baled scrap paper, plastics and cardboard that originated in homes, businesses and

institutions throughout the U.S. Then the Chinese government implemented its National Sword policy, which led to a seismic shift in the global secondary materials market.

National Sword imposed essentially unachievable quality standards for scrap paper and plastic imports. China's message to the

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## MassDEP Seeks Input on Next Solid Waste Master Plan

By JOHN FISCHER

Massachusetts municipalities and businesses, like their counterparts throughout the country, face a dynamic mix of waste management challenges and opportunities. The decisions we make about how we manage our waste and the steps we take to reduce our trash through reuse, recycling, composting and other measures have important environmental and economic implications for our communities and the Commonwealth. Whether they are operating their own facilities, contracting on behalf of residents, or overseeing operations in their communities, local governments have important roles to play in the waste management system.

The Massachusetts Department of Environmental Protection recently launched its process to develop a new Solid Waste Master Plan for Massachusetts for the decade starting in 2020. The new plan will provide the policy blueprint for how the Commonwealth will work to manage its waste in the coming decade and beyond. The plan will guide future regulation development, policy changes, and grant and assistance programs.

The following are some of the key topics that the plan will address:

- How can the Commonwealth best ensure sufficient materials management capacity in the years ahead, including infrastructure for disposal, transfer, recycling, organics and reuse?
- What steps can Massachusetts take to foster more robust local and regional recycling markets to support recycling and spur job growth and economic development?
- How might the waste stream change, and how can we adapt to these changes over time?
- How can we make our recycling, composting and other waste management systems more efficient and cost-effective?
- How can new technologies improve our waste management system?
- What can we do to minimize the environmental impacts of our waste management system?

The MassDEP expects to issue its draft Solid Waste Master Plan for public comment in late 2019, followed by the publication of the final 2020-2030 plan by the end of 2020. As it has in the past, the MassDEP will seek extensive public input into the development of a draft plan before issuing it for formal public comment.

Along with other stakeholders, the Massachusetts Municipal Association is participating in the development of the draft Solid Waste Master Plan through the MassDEP's Solid Waste Advisory Committee. The MassDEP will also coordinate with MMA members and other associations on the development of the draft plan.

The MassDEP is also encouraging municipal officials to contact the department directly—by email at [dep.swmp@mass.gov](mailto:dep.swmp@mass.gov)—to offer suggestions and identify priority issues for your community.

For more information about the Solid Waste Master Plan, visit [www.mass.gov/guides/solid-waste-master-plan](http://www.mass.gov/guides/solid-waste-master-plan). 🌱

world—primarily the U.S. and Europe—was, “Your recyclables are too dirty, and unless they’re cleaned up, we won’t take them.”

Contamination in recycling bins is not a new thing. Plastic bags, toys, bowling balls, holiday lights and textiles are among the common contaminants found in the Massachusetts recycling stream. With the advent of large recycling carts on wheels, usually in conjunction with single-stream recycling, the public became less careful, and the era of “wishful recycling” was born. Well-meaning residents began putting items in their recycling bins that they *hoped* could be recycled, figuring that someone would get it all sorted out somewhere. For years, this practice didn’t cause much of a problem. China and other importers of secondary materials tolerated the low-quality recycling. With low labor costs and less stringent environmental and labor laws, Chinese importers paid U.S. recyclers competitive prices for the

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materials, sorted out the contaminants, and manufactured new packages and products to be shipped back to the U.S.

When National Sword imposed a contamination limit of one-half of 1 percent, U.S. recyclers switched to export markets in Vietnam, India, Indonesia, Turkey and even Italy. But the shipping costs are significantly higher, and without demand from China, the market became glutted and prices plummeted. Asian markets also tightened their material specifications in reaction to China's policies. The value of a ton of recyclables dropped between 50 and 75 percent.

Making matters worse, a glass bottle manufacturing plant in Milford that consumed much of New England's recycled glass to make new beer bottles closed in March 2018. This has led to a scramble to find alternative glass markets and added to the cost of recycling.

### Municipal Options

The domino effect of recycling market disruption has hit municipal recycling budgets hard. To meet higher quality standards, the state's eight recycling

facilities—known as material recovery facilities, or MRFs—had to slow their processing lines and add workers to remove more contaminants. Meanwhile, the MRFs are paying higher shipping costs and receiving a fraction of the revenue for the recyclables.

The Massachusetts Department of Environmental Protection is working to help municipalities respond to what, for the time being, is the new normal in the recycling world. The MassDEP recommends a focused effort on reducing contamination. Cleaning up the recycling stream before it gets to the MRF makes it less costly to process and results in improved value.

The MassDEP has created several programs to help communities get the word out about the importance of reducing contamination. This involves re-educating residents on the basics of recycling—what is accepted, and what is not—and providing direct feedback at the curb or transfer station.

The MassDEP's Recycling IQ Kit was developed to provide cities and towns with steps, tools and resources to help improve the quality of local recycling programs and tackle contamination at its

source. The program offers grants and technical assistance on a rolling application basis. The grants fund the implementation of a boots-on-the-ground education effort to visually inspect recycling containers and leave "oops" tags for problem materials. (See related story on Lynn's program below.)

Municipalities are advised to become a partner in the statewide education initiative known as Recycle Smart, launched by the Baker-Polito administration in August 2018. The program aims to raise awareness about the importance of keeping our recycling free of problem materials: plastic bags, food and liquids, "tanglers," clothing/textiles, and bagged recyclables. The website ([recyclesmartma.org](http://recyclesmartma.org)) features videos, a recycling FAQ, sample social media posts, and the Smart Recycling Guide, with images of what should go into the recycling bin and what should not. The MassDEP developed the guide in collaboration with the state's private sector MRFs. The MRFs agreed that a consistent message about what to recycle would reduce the public's confusion about recycling. Municipalities are urged to

## Armed With Recycling IQ Kit, Lynn Sees Marked Improvements in Recycling

Lynn, a North Shore community of nearly 100,000, began noticing a spike in contaminated recycling in 2015. Two years later, the Massachusetts Department of Environmental Protection awarded the city a Recycling IQ Kit grant, which provided \$15,000 plus forty hours of technical assistance to implement the program. The city used \$25,000 in Recycling Dividend Program funds to cover the remainder of the costs.

The top contaminants in Lynn's recycling stream were plastic bags, food and liquids. The city implemented eight weeks of curbside feedback to 5,000 households (18.5 percent of households served) and launched an extensive citywide outreach strategy.

The recycling coordinator spent six weeks preparing—getting consensus to reject contaminated recycling carts on collection day; developing the budget, timeline and operating procedures; hiring staff; and printing outreach materials.



*"DO NOT BAG Recyclables" is the message from the Lynn Recycling IQ team. (courtesy photo)*

Curbside feedback was focused in areas with the highest rates of contaminated recycling—approximately five hundred households on each of the ten recycling routes. Four staff (three cart checkers and one route supervisor) were hired for eighteen weeks at twenty hours per week. (The cart checkers were college students on summer break.) Cart checkers attached "Oops tags" to recycling carts with the most problematic items. The tags included the message: "Correct this, and we will collect next time."

Two mailers were sent out. One went to all Lynn residents and focused on what is recyclable and what isn't. A second mailer about plastic bags was sent to the 5,000 households along the routes targeted for curbside feedback.

All the printed materials were in English and Spanish. Citywide signage included billboards, banners, store signs and sandwich boards focused on the top contaminant: plastic bags.

adopt the rules, use the downloadable Smart Recycling Guide postcard, and update their recycling websites.

## Supporting Markets

The MassDEP also supports the development of local recycling markets through its Recycling Business Development Grants. The agency announced \$1 million in grants last November and will announce a second round in 2019. Last July, the MassDEP awarded the towns of Dennis and Groton a total of \$257,000 to establish regional glass recycling operations to convert glass bottles and jars into processed glass aggregate for use in drainage and construction projects. Last November, the Baker-Polito administration awarded another \$2.1 million to municipalities to improve recycling programs and reduce waste.

The 2019 municipal recycling grant, known as the Sustainable Materials Recovery Program, will be released in April, with applications due by June 12. Grant information workshops and webinars will be offered in April to assist interested municipalities.

Is there a light at the end of the tunnel with the recycling market downturn? Already, there are some positive signs, including recent private sector investments in domestic paper and plastic mills. Chinese imports of secondary materials have been reduced to a trickle, but its manufacturers still need fiber and plastics, so they plan to source that material directly by investing in mills and processing in the U.S. Last November, the Northeast Recycling Council ([nerc.org](http://nerc.org)) released a list of investments being made that will expand paper and plastic recycling capacity, including facilities in Maine, Virginia, West Virginia and the Midwest.

In the meantime, the MassDEP is encouraging municipalities to keep the long view in mind. Recycling has become a much more costly service in the wake of National Sword, but the reasons to stay the course are many. Recycling, reuse and remanufacturing (using recycled feedstocks) support more than 2,000 businesses with an estimated 14,000 jobs in Massachusetts and bring \$3.2 billion

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## Recycling Resources for Cities, Towns and Consumers

- **MassDEP's Recycling IQ Kit:** [www.mass.gov/how-to/get-the-massdep-recycling-iq-kit](http://www.mass.gov/how-to/get-the-massdep-recycling-iq-kit)
- **RecycleSmart:** <https://recyclesmartma.org>
- **Recyclopedia:** <https://recyclesmartma.org/results-materials/#>
- **Beyond the Bin (directory of drop-off locations for textiles and other materials that can't go in recycling bins):** <https://recyclesearch.com/profile/ma>



Outreach included paid and earned media in local newspapers and on social media, as well as local access television segments and announcements. Letters were sent to 294 owners of buildings where heavy contamination was found. The letters offered assistance to teach residents about proper recycling.

The route supervisor communicated regularly with the hauler (Waste Management) to let them know which carts were tagged and left unemptied at the curb.

Lynn received a second MassDEP grant for \$40,000 to implement the program in an additional 20 percent of the city's households in 2018.

## Results

The city was able to document significant progress as a result of the program.

- The overall rejection rate (tagging rate) decreased 71.5



*Lynn Recycling Coordinator Jacqlyn Culwell is interviewed about Lynn's recycling program as part of the public awareness campaign. (courtesy photo)*

percent from the first week (31.6 percent) to the last week of the program (9.8 percent).

- Areas with single-family homes had significantly fewer contaminated carts than areas with large concentrations of multi-family homes.
- It took two Oops tags or less to bring 98 percent of households into compliance in the most compliant area.
- It took two Oops tags or less to bring 87 percent of households into compliance in the most non-compliant area.
- Letters sent to 118 owners of multiple Oops tag properties in week 6 resulted in an 85 percent decrease in Oops tags to those properties in the last week of the program.

"Most residents have good intentions," said Lynn's then-Recycling Coordinator Julia Greene, "but they simply don't know some of the rules to recycling." 🌟

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into the Massachusetts economy each year, according to the 2009 *U.S. Recycling Information Study*, prepared for the Northeast Recycling Council. In addition, the public counts on recycling programs. The alternative to recycling, disposing of recyclables as trash, not only is against the law (due to waste disposal bans), but is just as costly and lacks the environmental benefits.

The recycling collection infrastructure in Massachusetts is strong, due to millions of dollars in investments by the state (more than \$30 million since 2010), municipalities and the private sector. There will be some rough sledding in the next year, but in the long term our communities, our economy and our environment will reap huge rewards from recycling, including saving natural resources, increasing energy efficiency and reducing greenhouse gas emissions. ❁