

**Board of Directors Meeting Highlights
Held on October 19, 2017 at 5:00 PM
at the MRF Board Room**



2018 Budget

2017 has been a great year for the Association in terms of commodity prices. The pricing has been very good until recently when China announced it was stepping back from imports. The commodity improvements will lead to a surplus at the end of the year.

There will be no increase in 2018 for the recycling component of the budget. The per share cost will remain at \$54.94. Co-collection and automated rates are based on the CPI rate as of July 2017. They will be adjusted to the actual September rate when published later in October. Commodity revenue for 2018 is based on current tonnages and the mid point between current prices and the 5 year average. Prices have been great this year until the recent crash. Grants are based on this year's award.

Expenses in most categories are projected to be in line with the projected cost of living of 1.2% supplemented by higher energy prices boosted by the new carbon tax and some added spending in processing to meet the new quality standards being demanded.

	2017 Budget	2017 Projection	2018 Budget	\$ Diff.	%
Sales					
Commodity Revenue	1,618,000	2,282,000	1,650,000	-632,000	-27.7%
Grants	1,805,000	2,019,000	2,019,000	-	0.0%
Municipal Levy	3,626,000	3,727,000	3,778,000	51,000	1.4%
Co-Collection Revenue	3,094,000	3,089,000	3,124,000	35,000	1.1%
Containerized Services	1,075,000	1,152,000	1,170,000	18,000	1.6%
Other	412,000	366,000	441,000	75,000	20.5%
Total Sales	11,630,000	12,635,000	12,182,000	-453,000	-3.6%
Total Cost of Goods Sold	1,321,000	1,371,000	1,372,000	1,000	0.1%
Gross Profit	10,309,000	11,264,000	10,810,000	-454,000	-4.0%
Operating Expenses					
<i>Total Administration Expenses</i>	789,850	740,000	765,250	25,250	3.4%
<i>Total Collection Expenses</i>	4,844,000	4,919,500	5,017,000	97,500	2.0%
<i>Total Processing Expenses</i>	1,682,500	2,007,000	2,186,500	179,500	8.9%
Total Operating Expenses	7,316,350	7,666,500	7,968,750	302,250	3.9%
Operating Income	2,992,650	3,597,500	2,841,250	-756,250	-21.0%
Total Nonoperating Expense	2,632,000	2,763,000	2,632,000	-131,000	-4.7%
Net Change in Cash Position	360,650	834,500	209,250	-625,250	-74.9%
Share Charge	\$54.94	\$54.94	\$54.94	\$0.00	0.0%

Dawn-Euphemia Launch Automated Program Followed by Chippewas

The Municipality of Dawn-Euphemia is in full swing of the launch of its automated program. The ads are in the paper, instructional flyers are being mailed, and the wheelie bins are being delivered. Their first collection is set to occur on November 3rd in the Euphemia area followed by the Dawn area on November 10th.

While we work on this launch, the next one is already in the works. The Chippewas of the Thames First Nation have chosen to adopt the same service as their neighbouring Oneida of the Thames First Nation. On December 6th, we will begin the collection of recycling wheelie bins from all their residents on a weekly basis. We are quite excited to finish the year with this launch.

Waste Reduction Week

With Waste Reduction Week is happening this year between October 16th-22nd.

To celebrate, the Association has placed ads in all the local papers promoting recycling. Our focus is simple ads promoting readily recyclable materials to improve the quality of materials collected.

The image shows two recycling instruction flyers from the Bluewater Recycling Association (BRA). The flyer on the left is titled "KEEP ON RECYCLING" and features the BRA logo and website. It lists acceptable items for recycling: Aluminum and Steel Cans (empty and rinse), Food and Beverage Cartons (empty and replace cap), Glass Bottles and Jars (empty and rinse), Printed Paper, Boxes, and Cardboard (flatten), and Kitchen, Laundry, Bath: Bottles and Containers (empty and replace cap). It also lists items not to recycle: No Garbage Please, No Needles and/or Hazardous Materials, No Food, Liquid, or Organic Materials (empty all containers), No Clothing or Linens (use donation programs), and No Tangles (no hoses, wires, chains, or electronics). The flyer on the right is titled "RECYCLE PRINTED PAPERS & PACKAGING" and lists acceptable items: CANS (Aluminum and Steel Cans, empty and rinse), CARTONS (Food and Beverage, empty and replace cap), GLASS (Bottles and Jars, empty and rinse), PAPER (Printed Paper, Boxes, and Cardboard, flatten), and PLASTICS (Kitchen, Laundry, Bathroom: Bottles and Containers, empty and replace cap). Both flyers include the contact information: CALL us at 800-265-9799 or email at info@bra.org. A note at the bottom of the left flyer states: "Space provided through a partnership between industry and Ontario municipalities to support waste diversion programs."

KEEP ON RECYCLING

BRA
Bluewater Recycling Association
www.bra.org
800.265.9799

RECYCLE THESE PRINTED PAPERS AND PACKAGING LOOSE IN YOUR RECYCLING BIN

- Cans**
Aluminum and Steel Cans
empty and rinse
- Cartons**
Food and Beverage Cartons
empty and replace cap
- Glass**
Bottles and Jars
empty and rinse
- Paper**
Printed Paper, Boxes, and Cardboard
flatten
- Plastics**
Kitchen, Laundry, Bath: Bottles and Containers
empty and replace cap

NO!

- No Garbage Please
- No Needles and/or Hazardous Materials
- No Food, Liquid, or Organic Materials (empty all containers)
- No Clothing or Linens (use donation programs)
- No Tangles (no hoses, wires, chains, or electronics)

Space provided through a partnership between industry and Ontario municipalities to support waste diversion programs.

RECYCLE
PRINTED PAPERS & PACKAGING

- CANS**
Aluminum and Steel Cans
empty and rinse
- CARTONS**
Food and Beverage
empty and replace cap
- GLASS**
Bottles and Jars
empty and rinse
- PAPER**
Printed Paper, Boxes, and Cardboard
flatten
- PLASTICS**
Kitchen, Laundry, Bathroom: Bottles and Containers
empty and replace cap

CALL us at 800-265-9799 or email at info@bra.org

Space provided through a partnership between industry and Ontario municipalities to support waste diversion programs.

Material Recovery Facility Upgrade

It has been eight years since the Association commissioned its new single stream automated processing facility where for the first time technology was used to perform the primary sorting of the materials and our people focused on quality control. A lot has changed since then and packaging has continued to evolve.

Newspapers continue to decline as are most glass packaged goods. However, the rest of the stream is also changing. Our cardboard is getting smaller in size because of all the online shopping. The growing use of pouches is affecting the flow of materials in the facility. The increased use of paper shredders at home is also affecting our equipment as it tends to follow the glass.

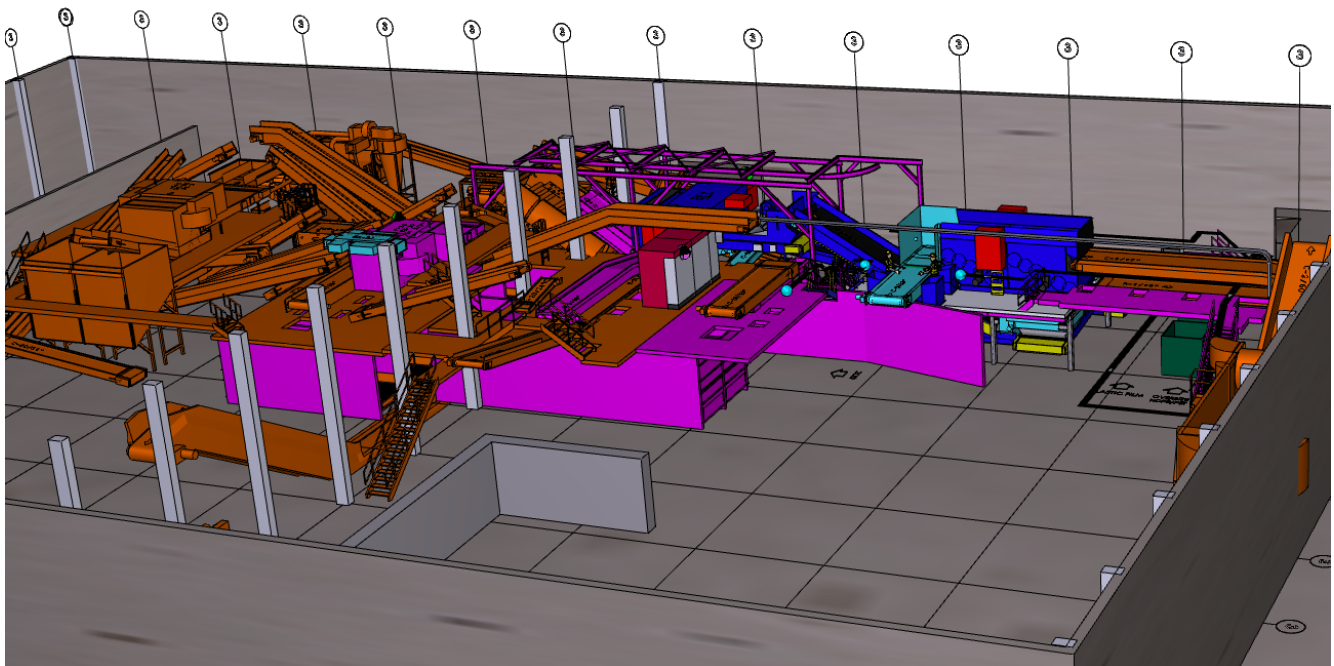
In the meantime, the end markets are demanding increased quality standards from us. Most commodities had a 5% allowance for contamination built in however that standard is now being pushed to 0.3% contamination allowance. Yes, that is a purity rate 17 times more stringent than in the past.

In anticipation of the impact that changes in packaging had on our system, the Board commissioned a review of the efficiency of the Material Recovery Facility last year. As suspected, three pieces of equipment were underperforming as a result of the changes affecting the efficiency of the system.

We promptly reviewed available technologies to rectify the situation and landed on a solution that will be installed at the end of November. The \$1.2 million upgrade could not have come at a better time as the commodity prices are crashing as a result China's pressure in the marketplace as explained in other stories.

A new cardboard screen designed to reduce down time and increase smaller cardboard recovery will be installed. The newspaper screen technology is being removed in favour of additional optical technology. This will enable us to target specific materials rather than rely on screen openings and friction to assume we have selected the right commodity.

Collection services will remain uninterrupted during the seven days a week 24 hours a day shut down starting November 9.



Have You Been Tagged?

In 2016, we completed the upgrade of our vehicle on board monitoring system of the wheelie bins. The drivers have been flagging and taking pictures of non compliant containers set out for collection ever since. This data has been invaluable in identifying habitual offenders.

This summer, the Association took the initiative to target repeat offenders by visiting their containers prior to collection. If contamination was visible or found, then a red “Stop!” tag was left behind with instructions to communicate with the user that they were not following the recycling program rules. They needed to clean up their bin prior to servicing.

Where a bin was found in good condition, a green “Thank You” tag was left behind to encourage the user.

In some cases where a driver empties the bin and finds abuse “hidden” at the bottom of the bin, a red “Oops!” tag has been left to warn the user that future contraventions will not be tolerated.

The program has worked so well that we have now established a bin team with a full time inspector on staff.



Stewardship Ontario's (SO) meetings/webinars.

As an Ontario municipality or First Nations community interested in proposed amendments to the Blue Box Program Plan designed to facilitate transition to full producer responsibility. SO has set up two meetings and **please note that you need to register for each meeting separately** (separate registration links for each Module are found below).

On Thursday, October 12, 2017 SO covered Module 1 SO plans to focus on the collection and post-collection features of the proposed a-BBPP that address the transition process to full producer responsibility and will discuss:

Requirements from the Minister's Letter that pertain to municipalities and First Nations communities, as well as details about the consultation process.

The proposed method for calculating payments to non-transitioned municipalities and First Nations Communities, including the eligible sources of paper products and packaging (PPP), as well as eligible costs and revenue.

The proposed transition process, eligibility criteria and timelines for transitioning communities.

The proposed procurement and payment frameworks that will be utilized in transitioned communities.

Proposed approach to expanding services, including multi-family units not currently serviced by municipalities, and consideration of new communities and public space recycling. And more ...

On Friday, October 27, 2017 it will cover Module 2, SO will focus on the performance requirements of the transitioned recycling system as they pertain to municipalities and First Nations communities as collection service providers to Stewardship Ontario. This will be another opportunity for SO to gather our feedback on this amended Plan and to discuss:

The proposed definitions of obligated packaging and paper product, including paper products, primary packaging, convenience packaging and transportation packaging.

The proposed standardized list of targeted materials for collection, along with the proposed targets.

Proposed collection and management standards. And more...

Amended Blue Box Program Plan

Passed in November, the Waste-Free Ontario Act will transfer the responsibility of the operation and expense of collecting and recycling paper products and packaging to the producers. Currently, the cost is split roughly 50/50 between municipalities and the companies that produce those items.

While the legislation has been passed, no regulations have been put in place to date. That delay is costing Ontario municipalities approximately \$130 million per year.

A group representing the producers has been working with a contingent representing municipalities in Ontario — the Association of Municipalities of Ontario, the Municipal Waste Association, the Regional Public Works Commissioners of Ontario and the City of Toronto — on the creation of an interim plan to be overseen by the province.

That proposal is expected to be delivered to the province by mid-February and come into effect by early-to-mid 2019, if an agreement can be reached and the Minister approves it.

In March, the province also released a report, Ontario's Strategy for a Waste-Free Ontario: Building the Circular Economy, which laid out 15 steps the province can take to reduce waste and, in turn, reduce greenhouse gas emissions from landfills.

THE FUTURE OF THE BLUE BOX

Current Blue Box Program Plan (BBPP) Waste Diversion Transition Act, 2016

Producers provide funding up to 50% of net cost of the Blue Box Program.

In-kind contribution by newspapers is part of the 50% funding, which impacts the amount that municipalities receive.

There is a 60% recycling target based on a basket of goods (i.e. combined material target).

Minister to receive the amended BBPP by February 15, 2018 for approval

Stewardship Ontario is required to consult and develop an amendment to the BBPP.

Resource Productivity and Resource Authority (RPRA) and the Minister are required to consult and approve.

Non-transitioned Municipalities Waste Diversion Transition Act, 2016

Municipalities continue to operate or to contract for collection and processing services. The amended BBPP will determine eligible sources of Blue Box materials, how program costs will be calculated and verified, and a percentage of these costs to be paid by producers.

Municipality transitions upon completion of collection and processing contracts or upon agreed terms. (full details to be confirmed)

Transitioned Municipalities Waste Diversion Transition Act, 2016 (Changes required to Regulation 101/94 for transitioned municipalities)

Stewardship Ontario is required to consult and amend the BBPP. The amended BBPP could improve service accessibility and result in an expanded list of paper products and packaging. There will likely be a 75% recycling target based on a basket of goods and the move to material specific targets.

Municipalities will have options:

- a. to act as service providers to producers who are required to pay for these programs
- b. work with private service providers
- c. opt out from providing service altogether

Minister to provide direction for Stewardship Ontario to wind down.

Minister to pass a new regulation under the Resource Recovery & Circular Economy Act.

Consultation and formal approval is required.

NEW Regulation

Resource Recovery & Circular Economy Act, 2016

Producers (collectively or individually) to collect and manage Blue Box materials based on requirements in new regulation.

Municipalities will have the following options:

- a. act as service providers to producers who are required to pay for these programs
- b. work with private companies that may use existing municipal infrastructure
- c. opt out from providing service altogether

The new regulation could improve service accessibility and result in an expanded list of paper products and packaging with material specific targets.

RPRA will have greater power to oversee and enforce.

Phase 1 - Stakeholder Consultations:

Combination of webinar and in-person meetings between October to November 2017

M3RC preparation for teleconference on October 11, 2017

Module 1 Consultation

In-person / webinar October 12, 2017

Focus on: Consultation process, eligible costs for non-transitioned municipalities, transition criteria, procurement approach and expansion of services

M3RC preparation by teleconference on October 26, 2017

Module 2 Consultation

In-person / webinar October 27, 2017

Focus on: Definitions of PPP for transitioned municipalities, standardized list of targeted materials for collection with proposed targets and proposed collection and post-collection management standards

Regional Sessions

Planned for Southwestern Ontario, Greater Hamilton Area, Eastern Ontario, Central Ontario, Northwestern Ontario, Northeastern Ontario in November. Details posted shortly. Focus on draft amended BBPP

Details will be posted shortly by SO

M3RC members in attendance at all sessions.

Regular updates and opportunities from M3RC and AMO.

Late November/December 2017 municipal staff consider/bring forward updates to Municipal Councils

Amended BBPP Development

Based on feedback from stakeholders & Indigenous peoples, develop and submit an A-BBPP to the Boards of SO and RPRA at their respective December 2017 meetings for approval

This is required to initiate Phase 2

Draft of A-BBPP Posted

RPRA & SO will release the full draft proposal to all stakeholders and Indigenous peoples by Dec. 22, 2017 for comments

Phase 2 - Stakeholder Consultations on amended Blue Box Program Plan January to March 2018

Phase 2 RPRA and MOECC Approval

Finalize A-BBPP Proposal:

SO to finalize the proposal & accompany consultation report for approval by the SO Board in mid-Jan 2018

Three webinars to be held on Jan. 8 2018. Written comments invited until Jan. 15, 2018

Submission to RPRA by SO:

SO submits the A-BBPP to RPRA for approval in late Jan. 2018

Final amended BBPP is due to MOECC by Feb. 15, 2018

Submission to the Minister of Environment & Climate Change by RPRA:

Required submission by RPRA Board by February 15, 2017

Potential for RPRA to approve with changes or recommendations to the Minister

MOECC will need approvals to post on the EBR

Posting on the EBR for public comment likely for 30-45 day posting

Decision by Minister

Potential for the Minister to approve, approve with changes, not approve or make no decision

Any decision will likely be needed by mid to end of March due to impending provincial election



A-BBPP: Amended Blue Box Program Plan
AMO: Association of Municipalities of Ontario
EBR: Environmental Bill of Rights
M3RC: Municipal Resource Recovery and Research Collaborative
MOECC: Ministry of Environment and Climate Change
PPP: Paper products & packaging
RPRA: Resource Productivity and Recovery Authority
SO: Stewardship Ontario

AMO
Association of
Municipalities Ontario

MUNICIPAL 3R'S
COLLABORATIVE
RESOURCE | RECOVERY | RESEARCH

China's Changing Policies on Imported Recyclable

China has taken a number of steps this year to restrict recyclable materials imported into China. These measures will have significant impacts to recycling within the U.S., and the rest of the world.

China is the single largest consumer of recyclable materials exported from the United States. In 2016, approximately 41% of paper recovered in the North Americas was exported with about a quarter of recyclable paper exported to Chinese mills. Similarly, over 20% of post-consumer bottles and 33% of non-bottle rigid plastics from the U.S. were exported in 2015. The European Union exports over 95% of its plastic to China. The US and the EU are the largest exporters of paper grades into China.

In February, as part of China's broader "National Sword" campaign, customs enforcement began a one-year crack down on illegal smuggling of "foreign waste."

On July 18, 2017, China notified the World Trade Organization (WTO) of its intent to ban 24 materials from being imported. These include mixed plastic and mixed paper effective January 1, 2018.

On August 10, 2017, the Chinese announced a new quality standard for material limiting prohibitives to 0.3 percent. This requirement applies to all materials, even those that are not banned (such as ONP or OCC).

The Chinese Government has not issued the necessary import licenses to satisfy the demands of its mills for recycled material. As a result, there has been a reduction of all recyclable tons entering China.

Depressed commodity prices. Uncertainty in both the short and long-term Chinese export markets is already disrupting the markets for recyclables in some parts of U.S. Due to this uncertainty, we do not know how long or how severe the disruption will be, but we will be monitoring markets closely.

The short-term disruption is caused primarily by a lack of the quotas required by the Chinese Government for Chinese mills to be able import products

Longer term disruptions may be caused by China's new material ban, and their new 0.3% prohibitives standard.

Availability of outlets. If the ban goes into effect, the ability of other markets to absorb all the recyclables will be strained. Some materials may not be able to find an end market.

Regional variations. The impact is expected to vary by region and local markets across the country.

Eventual relaxation of ban. Given the China's reliance on recyclable raw materials, industry experts predict that the ban may not be enforced against high quality materials.

Ensure High Quality Recyclables - High quality material is more likely to find a market. The new 0.3 percent prohibitives limit is far below any existing international standard. However, high quality material will be welcomed by both domestic and international markets.

This is a global and an industry-wide issue, not a local or individual company issue. Our industry will benefit if we work together to develop solutions to volatile recycling market in the near term, and to work together for longer term solutions as necessary.

Communicate. It is important to communicate with recycling partners to focus on quality and to develop solutions for your communities.



Tackling Food and Commercial Waste Key to Ontario's Waste-Free Future

Ontario has a waste problem. Every year, Ontario produces nearly one tonne of waste per person, and three-quarters of this waste ends up in landfills. The new Waste-Free Ontario Act sets an ambitious goal of a circular economy that sends zero waste to landfill. A special report from Dianne Saxe, Environmental Commissioner of Ontario, examines the new law and strategy and what the province needs to do next.

Beyond the Blue Box: Ontario's Fresh Start on Waste Diversion and the Circular Economy acknowledges that Ontario's new law is a significant achievement, but calls on government to get serious about making it work. The first steps: get food waste out of landfills and get businesses to pull their weight.

Ontario is rightfully proud of the Blue Box, which recycles paper and packaging from homes. But the Blue Box diverts less than 8% of Ontario's total waste. For real impact, the province needs action on two significant waste streams that have been ignored for far too long.

First, Ontario needs to get all food waste (organics) out of landfills, as Nova Scotia did almost 20 years ago. Food waste in landfills uses up space, causes pollution and releases methane, a potent greenhouse gas. Instead of being landfilled, food waste should be used as a source of renewable energy and a way to repair damaged soils.

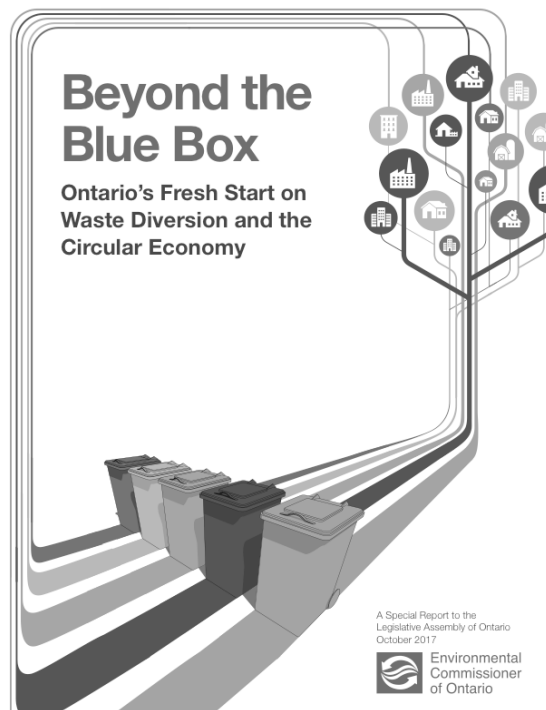
Second, Ontario shouldn't let businesses (e.g., factories, malls, restaurants and developers) and institutions (e.g., hospitals, universities and schools) keep on creating and landfilling so much waste. Businesses and institutions only recycle a paltry 15% of their waste, sending 2.2 million tonnes more waste to landfill than residents do each year. Landfilled waste causes pollution and squanders valuable resources that should be reused. Additionally, lax rules allow businesses to get away with making products and using processes that drive a "take, use once, throw away" mentality; cheaper in the short run, but much more expensive for society over time.

The new law, by itself, won't be enough. To achieve a circular economy, government must also change the social and economic causes of Ontario's wasteful habits, and enforce tough standards for waste reduction, reuse and recycling. In a circular economy, resources are used over and over, not just once.

As long as it remains cheaper to buy new stuff and throw it away than to repair, reuse or recycle it, a waste-free Ontario will remain a pipe dream. It will take some adjustment. But research shows the huge economic and employment promise of a low-waste economy.

Beyond the Blue Box reviews what Ontario should learn from its past failures, and how to overcome long-standing economic barriers.

In the long run, what matters most is moving Ontario to a circular economy, which means government must play a leading role driving policy that will foster the self-sustaining markets required to make this a reality.



Ontario Mulls Banning All Organic Waste From Landfills

The province warns its landfills could run out of capacity within the next 20 years if no changes are made. The plan aims to create a "circular economy" where waste is considered a resource

From coffee grounds, to leftover fettuccine alfredo, to the slimy, brown head of lettuce forgotten at the back of your fridge, the Ontario government is aiming to keep all organic waste away from landfills.

It's an ambitious target for a province that generates nearly 12 million tonnes of waste a year—more than 850 kilograms per person—and only recycles about a quarter of that amount.

If improvements aren't made, the province's landfills could run out of capacity within the next 20 years, the government warns.

In 2004, the Liberal government promised to boost the rate of waste diversion—through recycling and composting programs for example—to 60 per cent in four years. But 13 years later, the rate hasn't changed. Now, the government has set its sights on an even more distant target of 100 per cent.

Hence the Strategy for a Waste-Free Ontario, which aims to create a "circular economy," where waste is considered a resource that can be recovered, reused and reintegrated.

One area of focus is organic waste, which decomposes in landfills producing gases, such as methane, that contribute to global warming. Ontarians generate 3.7 million tonnes of organic waste per year, and greenhouse gas emissions from the waste sector—mostly organics in landfill—account for six per cent of the province's total emissions.

The government's organics action plan, to be implemented next year, includes the possibility of a ban on sending organics to landfills.

More than half the food waste in the province is generated at home, but the residential sector has steadily improved how much of that is diverted from landfills, with a rate now just over 50 per cent. In contrast, only a quarter of the food waste produced by the industrial, commercial and institutional sectors is diverted.

Fundamental changes are required in how people think of and treat organic waste. Organics should be the next target on the waste frontier.

While nearly all households in the province have access to recycling programs, not all municipalities have organic waste programs. Most of the larger ones—covering around two-thirds of the population—have green bin programs, but not everyone is using them properly.

Municipalities with more than 50,000 people are required to have a leaf and yard waste program, but there is no such requirement yet for green bins.

Mandating collection of food and organic waste is another tool Ontario is considering, but smaller municipalities say that's not feasible.

As Ontario considers a disposal ban on organics, it is looking to the examples of Nova Scotia and Metro Vancouver, which already have them in place.

Nova Scotia banned organics from landfills two decades ago. Even with a disposal rate much lower than the Canadian average, about half of what's in the waste stream is still banned material.

The cost for the industrial, commercial and institutional sector to dispose of waste is \$118 per tonne to the U.S. and \$134 per tonne in Ontario, but \$205 per tonne to divert.

The Provision Coalition works with food and beverage manufacturers to integrate sustainability into their business model, aiming to save businesses money by preventing food waste in the first place.

Some manufacturers send product that won't sell or is mislabelled to food banks, which is where organizations such as Second Harvest come in.

The food rescue charity picks up the food and delivers it to social service agencies, to the tune of about 4.7 million kilograms this year. But they won't pick up anything less than 45 kilograms worth of food.

To ensure smaller food donors can participate in similar programs, Second Harvest is developing a web-based platform that would connect them to the closest agencies in need.

The Retail Council of Canada said grocery stores have a number of initiatives for trying to prevent food waste, including partnering with food banks, selling blemished fruit at a discount, and educating customers.

Along with having full producer responsibility for the management of packaging, as has been passed in the Waste-Free Ontario Act, the strategy also calls for implementing a framework to reduce the amount of food and organics going to landfill, and improving oversight and accountability in the waste management sector. Based on the latest consultations, we expect the Ministry of the Environment to announce the following plans with regards to organics in the coming weeks with a ban by 2022.

	Current Municipalities with curbside green bin programs	Southern: 50,000 pop and urban density greater than 800p/km2	Southern: 20,000 pop and urban density of greater than 600p/km2	Northern: 50,000 pop and urban density of greater than 800p/km2	All Others small, rural, Northern
Target	75% by 2023	75% by 2023	50% by 2023	50% by 2023	Best Effort
Curbside Collection	Yes	Yes	Preferred	Preferred	Not Required
Source Separation	Yes	Yes	Preferred	Preferred	Not Required
Alternative to preferred option	Alternatives can be used if it is demonstrated that the targets can be achieved efficiently and effectively				Diversion through home composting, Community composting, or local event day

The Impact Of Markets, Hurricanes And Trade Policy On The Solid Waste Industry.

Volume and price are the two key drivers in the waste business. After the Great Recession volumes started to improve in 2014, which increased operating costs and improved pricing. The last decade has experienced “anemic” gross domestic product (GDP) growth, and the Consumer Price Index (CPI), which had historically seen 4 percent per year growth, has only grown 2 percent per year for the last 15 years on average and only 1.6 percent per year since the Great Recession. The industry is seeing real headwinds with low GDP and low CPI. The impact of the housing market on the waste industry, is a “true barometer” of what is driving the industry, but in the current market, the situation has been a bit unpredictable.

No one has ever experienced what we are watching today in the garbage industry, the slow gradual recovery in the housing cycle and an underlying consumer segment that is actually confident. Millennials are starting to buy houses--they may be smaller houses, but they are getting into the market. The housing starts in the last year are generating commercial and construction waste and spurring commercial waste collection businesses.

Pricing for recycled commodities was steady through spring, but then China made its filing with the World Trade Organization and the U.S. linerboard industry cut itself short on supply. It ended up creating steep increases in July and August. Recently, prices per ton for old corrugated containers (OCC) were down \$80 dollars per ton and old newspaper (ONP) dropped \$40 per ton. Sorted office paper (SOP) seems to be holding up. On top of everything else, China is also not issuing import licenses to mills, making conditions even more challenging.

We have never seen this before, and we’re not sure what was going on behind the scenes in China to prompt these moves. This uncertainty whether China will start issuing licenses in November and what the implication of that will be. If it does issue licenses, it is not apparent how soon the market will correct.

If this is the new normal, then we are faced with a meaningful revenue hit. That goes for equipment investments as well. There is going to be a pause here and people are going to take a big deep breath and just wait and see how some of this plays out.

The U.S. has a \$350 billion trade deficit with China. There are gaps with trade with the E.U., Mexico and Canada. The North American Free Trade Agreement (NAFTA) sent middle-class jobs out of the U.S.. Renegotiating trade agreements would be significant.

Coming off of two major hurricanes--Irma and Harvey-- Harvey caused an enormous amount of property damage. People aren’t going to leave; they are going to fix it, and wallboard and carpet waste will be generated as people rebuild.

Florida and Hurricane Irma was a different sort of storm. Instead of a ton of building damage, the storm “knocked all the palm trees down. At the end of the day, Waste Management and Waste Connections will get a boom of storm debris.

The recycling model is improving but the collection side has not been corrected. The typical \$3 to \$4 add on a monthly rate for recycling is too low. It has to be \$6 to \$8.



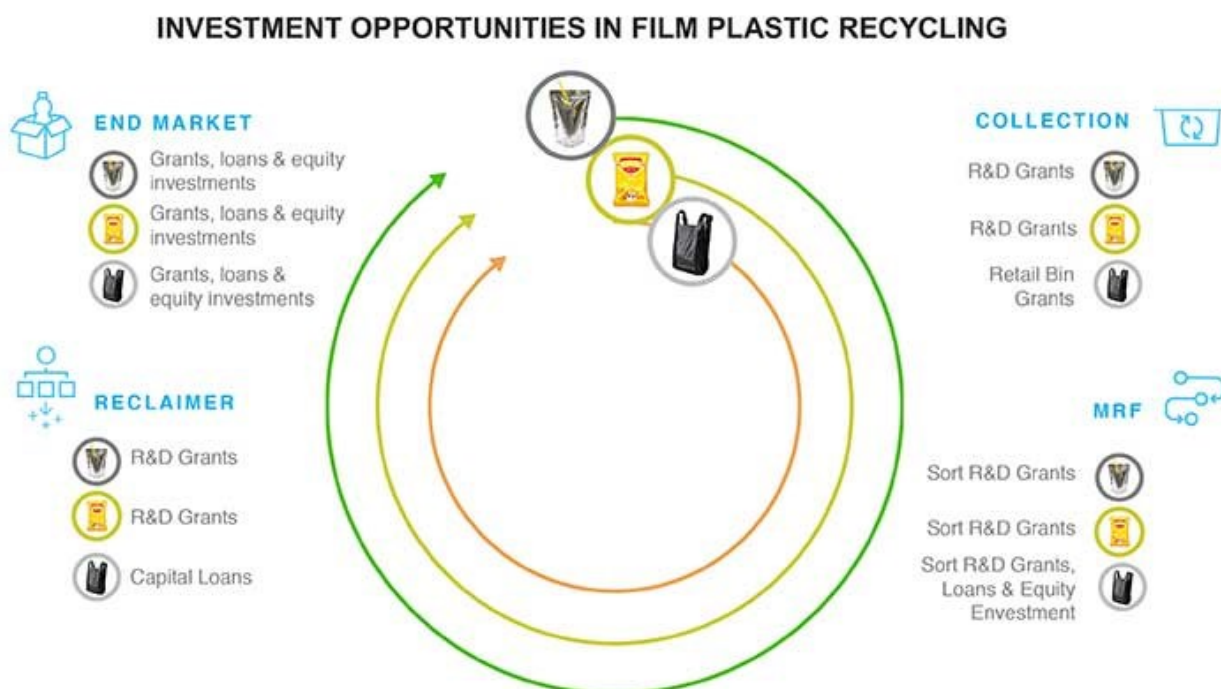
Closed Loop Foundation releases 'Recycling of Plastic Film Packaging' study

Report provides insights on how investors can advance recycling of film and flexible packaging.

The Closed Loop Foundation, which is the independent 501(c)(3) affiliate of Closed Loop Partners, has released a study that it says offers insights on how investors can advance film and flexible packaging recycling. The study, "Recycling of Plastic Film Packaging," was conducted with support from SC Johnson, Racine, Wisconsin.

Rob Kaplan of Closed Loop Foundation says, "Investors and supply chain leaders are looking for opportunities to catalyze recycling of flexible packaging, but there is a lack of real investable opportunities at the stage of commercialization. We identified a critical need to support the industry and investors by creating a roadmap for investing in flexible packaging."

The study characterizes the categories of flexible packaging and offers insights on challenges and trends to determine how investors can best affect this sector. Flexible packaging includes materials such as snack bags and pouches, which are growing in the market.



"Even though more film and flexible packaging are produced than plastic bottles, recycling of those products far lags that of bottles—it is important that we capitalize on emerging technologies and develop markets for this under-recovered stream of materials," says Tim Buwalda, senior consultant at Orlando, Florida-based RSE USA, strategic partner and author of the study.

According to the study, investors' key opportunity involves investing in end market development to increase the value of these materials.

"IntegriCo Composites, an investment of the Closed Loop Fund, is a great example of a United States-based manufacturer that is building the market by sourcing more multilaminate flexible packaging and LDPE (low-density polyethylene) films into the feedstock of its railroad ties," Kaplan says.

Additionally, emerging investment opportunities exist in the sorting and processing of flexible packaging, but philanthropic or research funding remains critical to test the most effective solutions

and motivate the industry to consider how to incorporate flexible packaging into a thriving recycling system, the Closed Loop Foundation says.

While retail collection remains a viable way to collect clean polyethylene film bags and wraps for recycling, it will struggle to reach scale, according to the study. Plus, recycling opportunities are needed for other flexible packaging materials. The study recognizes the crucial work of groups like Materials Recovery for the Future (MRFF), Dow Energy Bag and material recovery facility (MRF) equipment manufacturers that are testing ways to collect this material through the curbside residential recycling programs to ensure greater quantities of plastic film get recycled. “That is why this study was important—to identify where the investment community could make the most significant impact while avoiding duplication of efforts,” the Closed Loop Foundation says.

“Research such as this shines the light on the current industry and the struggle with getting more flexible film to the curb,” says Kelly M. Semrau, senior vice president of global corporate affairs, communication and sustainability, for SC Johnson. “SC Johnson is committed to finding a solution that brings Ziploc brand bags and other flexible films into the curbside recycling stream. While we know this is a long-term endeavor, there is a way to accomplish this goal.”



OTS Board Resigns

As of September 18, 2017, the OTS Board of Directors has submitted its resignation to the Resource Productivity and Recovery Authority (RPRA) and the Minister of Environment and Climate Change (MoECC).

The Board communicated in a letter to RPRA and Minister of the Environment and Climate Change that the actions, draft regulation and wind up direction from the MoECC and/or RPRA have made it impossible for the Board to comply with and perform their duties as directors, despite repeated requests and submissions made by the Board to both parties. The Board felt its concerns and reasonable requests for amendment were not reflected in the regulation and wind-up direction from MoECC and/or RPRA. In the Board's opinion, the wind-up process proposed for OTS is not in the best interests of OTS and its stakeholders, including its creditors and the public.

We have been assured by the Board that this decision is not reflective of its commitment to OTS and the current operation of the Program.

In the meantime, OTS continue to move forward with the development of the Used Tires Program wind-up plan as outlined by the MoECC directives, and this includes hosting consultations to gather input on various elements of the wind-up.

Their priorities continue to be the successful operation of the Used Tires Program, ensuring that 100% of Ontario's tires continue to be recycled into high value products and the development of a Wind-Up Plan for the Used Tires Program that will minimize potential disruptions of diversion services and any impacts on stakeholders, setting the stage for a seamless transition to the Resource Recovery and Circular Economy policy regime.



Ontario's Third Cap-And-Trade Auction Brings In \$526M

Ontario's third cap-and-trade auction has sold out of all allowances. The September auction follows two similarly successful efforts in March and June, all of which are aimed at lowering greenhouse gas emissions in the province.

The government puts caps on the amount of pollution companies in certain industries can emit, and if they exceed those limits they must buy allowances at auction or from other companies that come in under their limits.

The first auction in March brought in \$472 million and the June results show the second auction brought in about \$504 million. The government says the most recent auction brought in just shy of \$526 million, bringing the total for the program to roughly \$1.5 billion.

Revenues are being put toward green projects including retrofitting homes and putting fuel-efficient school buses on the road.

The government said the auction saw 25,296,367 current allowances sell at a settlement price of \$18.56 each, down slightly from the \$18.72 per allowance recorded at the June auction.

Sales of future vintage credits continued an upward trajectory established in the second auction.

In addition to current allowances, bidders could also purchase credits for the year 2020. The government sold a quarter of future allowances at the first auction and roughly half at the second, but said they sold out during the latest round of bidding.

The latest auction results put the province on track for the \$1.8 billion the Liberal government expects to come from the quarterly auctions in 2017. Earlier this year, the government revised its projections downward for subsequent years, saying it expects about \$1.4 billion annually, assuming the auctions sell an average of 80 per cent of allowances.

Since Jan. 1, cap and trade has added 4.3 cents per litre to the price of gasoline and about \$80 a year to natural gas home heating costs, in addition to indirect costs that will be passed onto consumers.



ISRI Board To Consider Amendment To Guidelines For Inbound Curbside Recyclables For Mrfs

Amendment would reclassify “any paper which has the potential to be contaminated with bodily fluid” as a prohibitive.

At its upcoming fall meeting, the board of directors for the Washington-based Institute of Scrap Recycling Industries (ISRI) will consider an amendment to ISRI’s scrap specifications that will reclassify “any paper which has the potential to be contaminated with bodily fluid” as a prohibitive, adding the words “and organic waste” to the end to better reflect how material recovery facilities (MRFs) characterize inbound paper products in the recycling stream.

The proposal originated in an effort by the recycling industry to emphasize with outside stakeholders that this material does not have a viable end market to be economically and environmentally sustainable.

The board may choose to adopt, amend or reject the recommendations of the divisions or table them pending further review. A similar motion to reclassify the specification for “clean, dry double-polycoat food packages” also will be considered at the meeting.

ISRI Proposed Specifications for Poly Vinyl Chloride (PVC) Plastic Recyclables

The Institute of Scrap Recycling Industries (ISRI) Board of Directors will consider the addition of new specifications for Rigid Poly Vinyl Chloride (PVC) Plastic Recyclables during its Fall Meeting on November 8. These specifications are intended to encompass more of the plastics recyclables that are actively trading in the scrap plastics marketplace.

The PVC specifications were approved by ISRI’s Plastics Division at the Spring Board & Committee Meetings in New Orleans on April 24, 2017. The new PVC Specifications are available for review.

In addition, ISRI’s Plastics Division will consider specifications for flexible PVC when it meets on November 7. If passed, the specifications will be open for public comment prior to and after the Winter Board Meeting in January 2018.

Vancouver Uses 2.6 Million Disposable Coffee Cups Every Week

While the abundance of coffee shops in Vancouver offers no shortage of choice for consumers, it also leaves an abundance of something much less appealing: Large amounts of disposable coffee cups that end up in the trash.

In fact, according to the latest findings as part of the city’s Single-Use Item Reduction Strategy plan, a whopping 2.6 million to-go coffee cups are thrown in the trash in Vancouver every week.

Despite their convenience, single use items cost Vancouver taxpayers about \$2.5 million a year to collect from public waste bins and to clean up as litter in the parks, streets and green spaces.

The consultation paper is intended to spark conversation on how the City of Vancouver and stakeholders can work together to develop a solution that reduces single-use items, supports convenient, affordable and accessible alternatives, and could be adopted by other communities.

Items to be included in the single-use item strategy include:

- Disposable beverage cups
- Plastic and paper shopping bags
- Take-out containers

Recycling Blend Textiles 'Without Any Quality Loss'

A four-year partnership between the Hong Kong Research Institute of Textiles and Apparel (HKRITA) and the non-profit H&M Foundation has found the means to recycle blend textiles into new fabrics and yarns 'without any quality loss'.

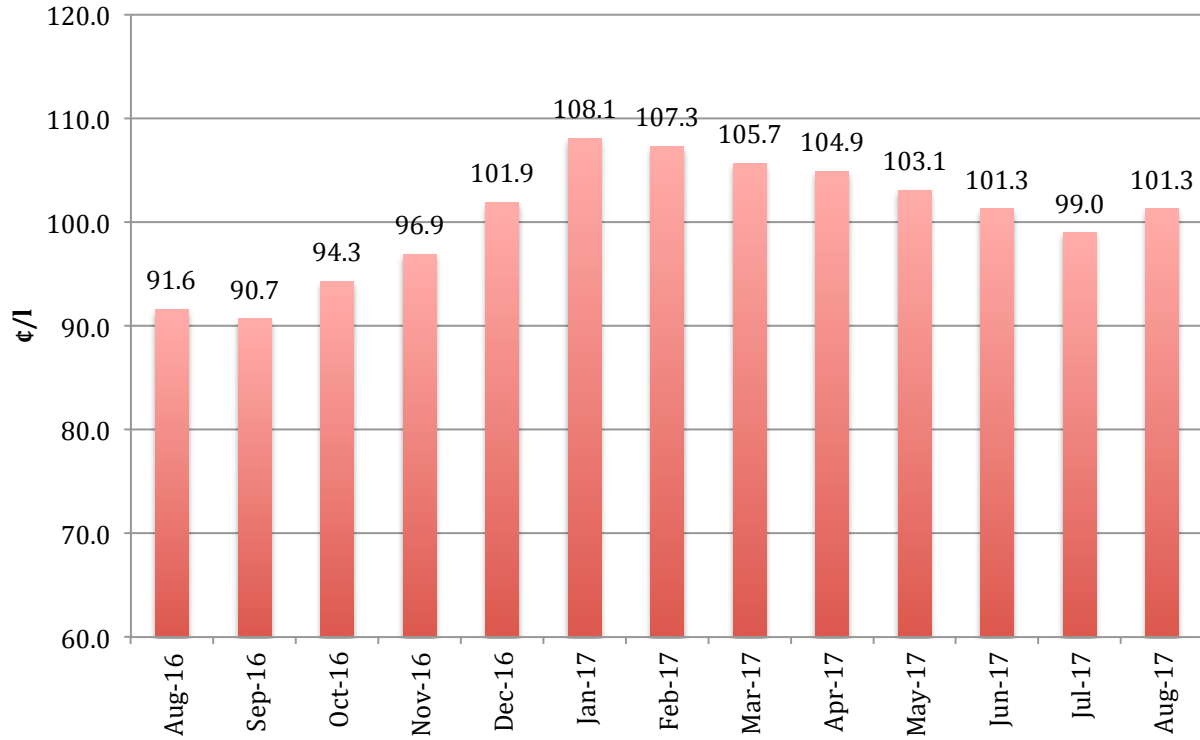


An innovative hydrothermal process uses only heat, water and less than 5% biodegradable green chemical to self-separate cotton and polyester blends. 'The recovered polyester material can be reused directly, without any quality loss,' the project partners stress. The technology will now be scaled up and made available to the global fashion industry to ensure this breakthrough has 'maximum impact'.

'For too long, the fashion industry has not been able to properly recycle its products since there's no commercially viable separation, sorting and recycling technology available for the most popular materials such as cotton and polyester blends,' observes Erik Bang, innovation lead at H&M Foundation. 'This very encouraging finding has the potential to change that. We are very excited to develop this technology and scale it beyond the laboratory, which will benefit the global environment, people and communities.'

So far, nearly Euro 6 million has been invested in the collaboration - Euro 2.4 million of which was donated by H&M Foundation, which initiated the project in September last year. It is estimated that the total project investment will be around Euro 30 million across the four-year collaboration (2016-2020), 'making it one of the biggest and most comprehensive efforts ever for textile recycling'.

Diesel Price (Retail incl. Tax)



Diesel Price (Retail incl. Tax)

