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IMPROVEMENT FUND

# Material Management for Market Success

Mike Birett, CIF  
Director

## In This Panel

- Jerry Powell, Resource Recycling Inc.  
*China's National Sword Update*
- Sherry Arcaro, Recyclable Materials Management (REMM) Consulting  
*Is it in or is it out? Proposed Targeted Materials for a-BBPP*
- Norman Kraft, Niagara Region  
*Innovative MRF Solutions*
- Francis Veilleux, Bluewater Recycling Association  
*Equipment Investment: What Makes Sense Today*



# China's National Sword Update

Jerry Powell  
Plastics Recycling Update  
Portland, Oregon  
[www.resource-recycling.com](http://www.resource-recycling.com)

**China is tightening the screw and  
we have to respond**

**U.S. companies  
concerned at China's  
proposed ban**

*Largest waste firms say their recycling loads are certified and clean.*

**China's War on  
Foreign Garbage**

*Imported recycling has been a boon for China. So why ban it?*

**What comes next after China's  
scrap ban surprise?**

## This is Only the Latest in Chinese Trade Actions (1)

- February 2013: Green Fence launches as an effort to enforce 2006 & 2010 regulations on recovered material imports
- November 2013: Green Fence officially ends
- November 2015: Two-month crackdown begins, "rejecting import loads containing unacceptable material such as solid waste."
  - Some observers fear it is the "next Green Fence," but it has nowhere near the impact
- February 2017: China announces National Sword, with a particular emphasis on illegal import permits & low-quality plastics
  - Immediate comparisons to Green Fence, even a similar timeline: slated to run from February through November
  - During the coming months, reactions are mixed on how it is impacting imports into China

## This is Only the Latest in Chinese Trade Actions (2)

- April 2017: Chatter begins on wider ban on recovered materials imported into China
  - Rumors fly over next few months
- July 2017: China informs WTO it will ban several groups of recovered materials from import by end of 2017
  - Appears to cover most plastic resins, some mixed paper, textiles & trace metals; definitions still hazy
  - Unclear when it will take effect
    - WTO filing proposes "entry into force" date of September 1, but leaves blank a "proposed date of adoption."
    - Official announcement from government says should be in force "before the end of this year."

## This is Only the Latest in Chinese Trade Actions (3)

### Today

- ~1/3 of all imports of scrap plastics & paper inspected at Chinese ports, with many loads being rejected
- New environmental super-agency in China sees recycling imports as a major issue



Source: Plastics Recycling Update, Dec. 6, 2017

## What We'll Look at Today

### Get ready.

- A great deal of conjecture & guessing will be offered today
- This is because of the opaque manner in which the Chinese government has said it will ban all imports of specific types of recovered plastics & paper from Europe, North America & elsewhere

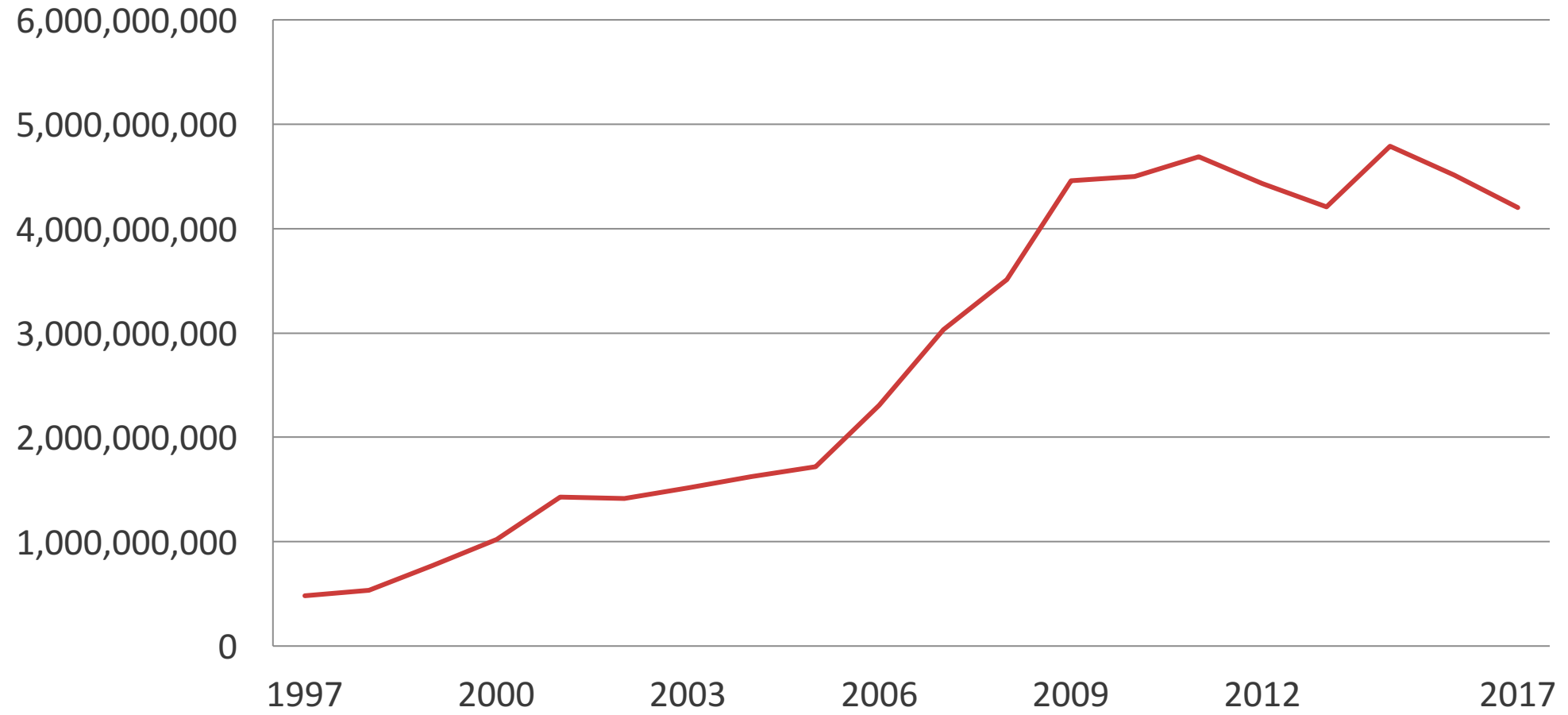
*Please accept this is our best attempt at clarity  
in a bad news reporting situation*

## And It Comes at a Time of Change



- China is losing its spot as the elephant in the room, for example:
  - China represented about 40% of U.S. plastics recycling export market in 2017
  - In comparison, China accounted for 60% of U.S. exports 5 years earlier, before Green Fence & National Sword
- Similar data can be offered for a decline in Chinese imports of recovered fiber

# Plastics Exports from the U.S. in Pounds





## And It Comes at a Time of Change (1)

- U.S. plastics export market is being quickly altered
  - Over the past year, exports to China dropped by half
  - Buyers in India, Vietnam & elsewhere have taken advantage of turmoil to boost imports



## And It Comes at a Time of Change (2)

- Chinese federal action comes at a time of rising environmental attention in China
  - Social media exposure of environmental problems is key driver

**In other words, China's pending import ban is more an environmental action than a trade move**













## And Now Comes Conjecture (1)

- The folks we talk to suggest the following:
  - Chinese officials are fully implementing the bans & contamination standards
  - Impact globally & length of import actions will be determined by amount of new domestic collections

## And Now Comes Conjecture (2)

- In comparison to China's recycled paper industry, its plastics recycling sector is less politically influential
- Many observers say the pushback on the fiber ban by the paper recycling industry may result in modified rules
- The ban has effectively killed the Chinese import market for mixed 3-7 plastics & mixed paper

# What Does This All Mean for Plastics? (1)

- At this point, we can offer these predictions:
  - The ban will aid some U.S. & Canadian reclaimers
  - Bale quality will likely improve
  - MRFs will be paid less for their lower-grade material (plastics & paper)
  - This may provide an opportunity for the plastics-to-fuel industry



## What Does This All Mean for Plastics? (2)

- Some Chinese reclaimers are establishing North America plants, & then will end up shipping only clean flake or pellets
- At the same time, several Chinese plastics industry members say some Chinese reclaimers will move elsewhere in Southeast Asia
  - mainly in neighboring Vietnam



# What Does This All Mean for Paper?

- Asian mills are stepping up purchases
  - For example, while Chinese paper imports are down 48 percent this year, Indian mills have boosted purchases by 204%
- But this is not enough
- Asian paperboard mills outside of China have been able to absorb only about 38% of China's cutback

## Now the Fake News: Predictions for Paper (1)

- I would contend bale standards will be loosened slightly & the flow of mixed paper will slightly improve for 3 reasons
  1. With closure of hundreds of small, polluting mills, the power in paper recycling moves more toward the giants (Nine Dragons, Lee & Man, etc.), who have considerable political influence
  2. Local recycling collection industry already rebelling because of tight bale standards

## Now the Fake News: Predictions for Paper (2)

- And lastly,
  3. Big users of recycled containerboard (Nike, Walmart, Target, etc.) will threaten to take their orders elsewhere if they can no longer buy large quantities of cheap boxes

***The threat of closing modern mills & laying off adequately paid workers will be a powerful weapon***



Source: Resource-Recycling.com

## Now the Fake News: Predictions for Paper (3)

- My prediction: a continuing decline in shipments to China of all grades, coupled with a slight easing of bale standards
- MRF sorting costs will continue to rise & fiber will be landfilled in many communities
- Shipments to other countries will grow, but at a slow rate
- Market development strategies will once again be discussed Canada & the U.S.



*Source: Plastics Recycling Update,  
April 11, 2018*

## *Disclaimer*

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# Drop me a line

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## Is It In or Is It Out? Proposed Targeted Materials for a-BBPP

Sherry Arcaro, VP of Consulting

ReMM Consulting

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# The Shift in Materials – Municipally Driven to Industry

- PPP – Paper Products & Packaging Supplied to Consumers
- Packaging means:
  - Primary Packaging, Convenience Packaging, Transport Packaging, Ancillary Packaging Elements, Packaging-Like Products\* - made from glass, metal & paper or a combination thereof
  - Excludes: Packaging accessories, Storage Containers, packaging made from wood, ceramic, crystal, rubber, leather or textile

# “The” List (1)

## ■ Paper Products

- Newsprint, magazines, catalogues, phone books, loose paper, notebooks, note pads, brochures, envelopes, wrapping paper, file folders, cards, corrugated containers, boxboard boxes & rolls, kraft paper, molded pulp, aseptic, gable top & polycoat containers & cups
  - Many “packaging like” materials included
  - Exclusions: Envelopes with bubble filling, foil wrapping paper, paper dishware, waxed cardboard, foil laminated containers, waxed containers, other paper laminates

*With the exception of soft cover books accepted in some municipalities  
the list remains consistent with most programs*

*\* paraphrased from Dec. 2017 Consultation Draft Version*

## “The” List (2)

### ■ Plastic Packaging

- #1 PETE bottles, jars & packaging
- #2 HDPE bottles, jars, packaging & **film**
- #4 LDPE bottles, jars, packaging & **film**
- #5 PP bottles, jars & packaging
- #6 PS rigid & **EPS/XPS expanded**
- Exclusions: #1,2,4,5, foamed, tubes, #1,5,6 film, all #3, **all #7**, PLA, PHA, PHB, **unmarked packaging or film**, multi-laminated packaging, containers with metal handles, hangers, & beverage alcohol containers on deposit



*How do MRF & Market forces play into this list?*

*\* paraphrased from Dec. 2017 Consultation Draft Version*



# Plastic Packaging Considerations (1)

## ■ Film

- Viable end-markets for clean post-consumer film
- Access will increase from 76% of households to 100%
- Controlling unmarked & excluded film will be difficult
  - 50% of film in the recycling stream is unmarked
  - Consistent provincial messaging will help
  - Will result in MRF innovation to increase capture & reduce contamination
  - Encourage use of resin coding and/or “How to Recycle” label
  - Messaging & market development



# It's a smarter label system.

Available both US &  
Canada specific

## RECYCLABILITY ICON

Indicates the recyclability of  
the packaging component

## SPECIAL INSTRUCTIONS

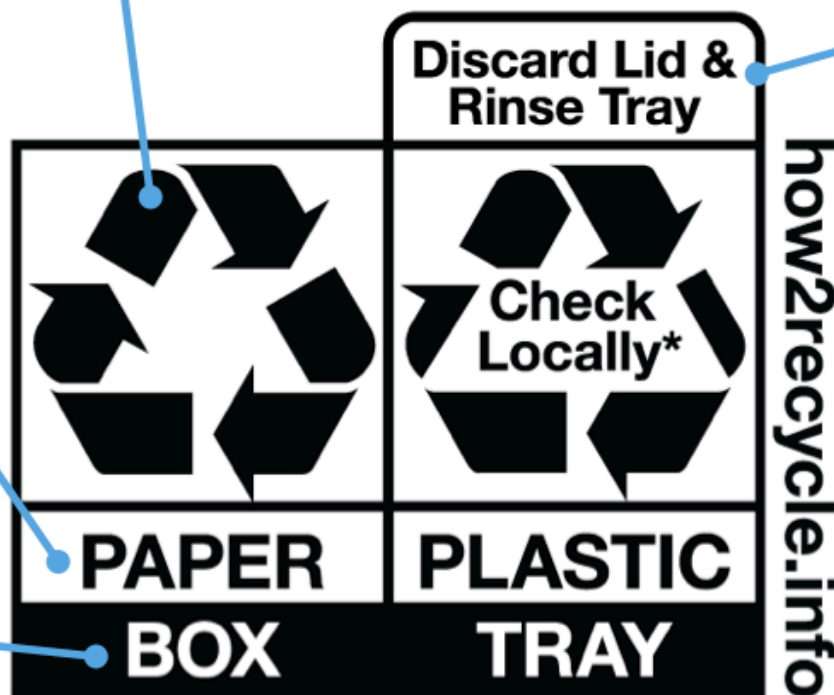
Tells consumer how to prepare  
component for recycling

## PACKAGING MATERIAL

Identifies the material type of  
packaging component

## PACKAGING COMPONENT

The specific part of the package  
referenced by the label



## HOW2RECYCLE WEBSITE

Provides information on the  
label & additional recycling  
information

**\*Not recycled in  
all communities**

Example for frozen food package



## Plastic Packaging Considerations (2)

- #6 PS, EPS & XPS
  - EPS/XPS challenging to get from curb to bale intact – breaks down in process & ends up in residue or as contamination in other bales
    - Important to divert from landfill, but how to do effectively
  - No markets currently for post-consumer material
  - Is depot collection the better option? Will this make a difference with markets?
  - Market development & MRF innovation needed to ensure capture & re-processing



## Plastic Packaging Consideration (3)

- Exclusions – #7 Other Mixed Plastics, PLA, PHA, PHB, unmarked, foamed resins
  - The largest area of “the box” for opportunity
  - Other/unmarked is 3% of the currently targeted plastics in the program
    - 30% of that is known to be usable polyolefin material
  - Market development & MRF innovation to move from excluded to included
    - Industry led working groups to find technical solutions
  - Consistent messaging needed to reduce curbside contamination & “wishful recycling”
  - Producer’s use of “How to Recycle” label can help



## Plastic Packaging Consideration (4)

- Exclusions – Multi-layer flexible laminate packaging
  - Fastest growing packaging format
  - No current end markets due to multiple layers/mixed resins & barrier films
  - Positive front-end on life cycle analysis, light-weight, cubes out well in transport
  - Consumers tend to collect with film, currently creates issue for film re-processing
  - Collect together – separate to re-processor? Innovation needed
  - SPC Innovation committees working on testing various blends, determining average resin composition & creating pellets for testing





# Metal Packaging

- Steel food, beverage & paint containers, other steel packaging, aluminum food/beverage containers, trays, plates & foil
- Exclusions: Aerosol containers, hangers, strapping, aluminum laminated packaging



# Metal Packaging Considerations

- Aerosol Cans
  - Accepted in most programs for 20+ years
  - Recyclable but should it be “accepted” due to potential MRF issues?
  - Past 5 years – MRF incidents with small “explosions” damaging balers/potential for staff injury

*Can consumers be trained to only recycle “empty”?*



## Clear & Coloured Glass

- Accepted in Ontario program since beginning
- Recyclable but since the advent of “comingled collection” clean capture an issue
- Ontario Deposit Return Program should be optimized to capture glass & other containers clean & intact – ODRP Glass currently 5% of targeted recyclables
- Depot infrastructure in Ontario not conducive to moving glass out of curbside collection

*How to collect & manage at MRFs to improve capture & quality?*



## Consistent Education & Economies of Scale

- Standardized list & messaging will improve material quality – improve capture, reduce contamination
- New program additions can be quickly implemented – moving materials from excluded to included as innovation dictates
- Increased capture will provide larger volumes of material to provide the economies of scale needed to innovate

## a-BBPP Transition Plan Statements on Market Development

- Fee methodology will enable allocation of cost to material categories to fund
  - Remedial actions to improve diversion performance of poorly performing materials
  - Actions to collect & manage items not currently collected
- Stewardship Ontario will
  - Undertake research to establish collection & management of affected materials not currently targeted for collection or
  - Address materials with low diversion performance in Full Producer Responsibility system

**Innovative MRF Solutions: Niagara Region**  
**CIF 1026 - Glass Market Study**  
**CIF 861 - Optical Sorters to Improve Fibre Quality**

Norman Kraft, CEO  
Niagara Recycling



# Goals of Niagara CIF Projects

- Supports innovation
- Improve material quality
- Ensure access to sustainable markets
- Improve revenue generated

## Niagara Recycling: A Social Enterprise Company

- Niagara Recycling operates the Niagara Region's MRF located in Niagara Falls processing over 77,000 metric tonnes of recyclables annually
- A leader in innovative processing systems including glass manufacturing, fibre sorting & polystyrene processing
- As a social enterprise Niagara Recycling provides employment opportunities for developmentally challenged adults & donates its surplus funds to support organizations throughout Niagara
- Over **\$2.5 million** has been donated in Niagara since 1996 including:
  - Niagara Training and Employment Agency
  - Pathstone Mental Health
  - Brock University
  - Momentum Choir
  - Red Roof Retreat

# CIF #1026 – Glass Study

- Project Objectives:
  - Investigate the use of recycled glass in storm water management
  - Determine if processed glass can replace pit sand in bio-retention soil
  - Determine long-term economic sustainability
- Impacts:
  - Create an additional market for processed glass in Ontario
  - Create a secondary market for the Region in the event Ecoglass (sandblast) market is slow
- More information:
  - [norman.kraft@niagararegion.ca](mailto:norman.kraft@niagararegion.ca)
  - [www.niagararegion.ca](http://www.niagararegion.ca) | [www.niagararecycling.ca](http://www.niagararecycling.ca)



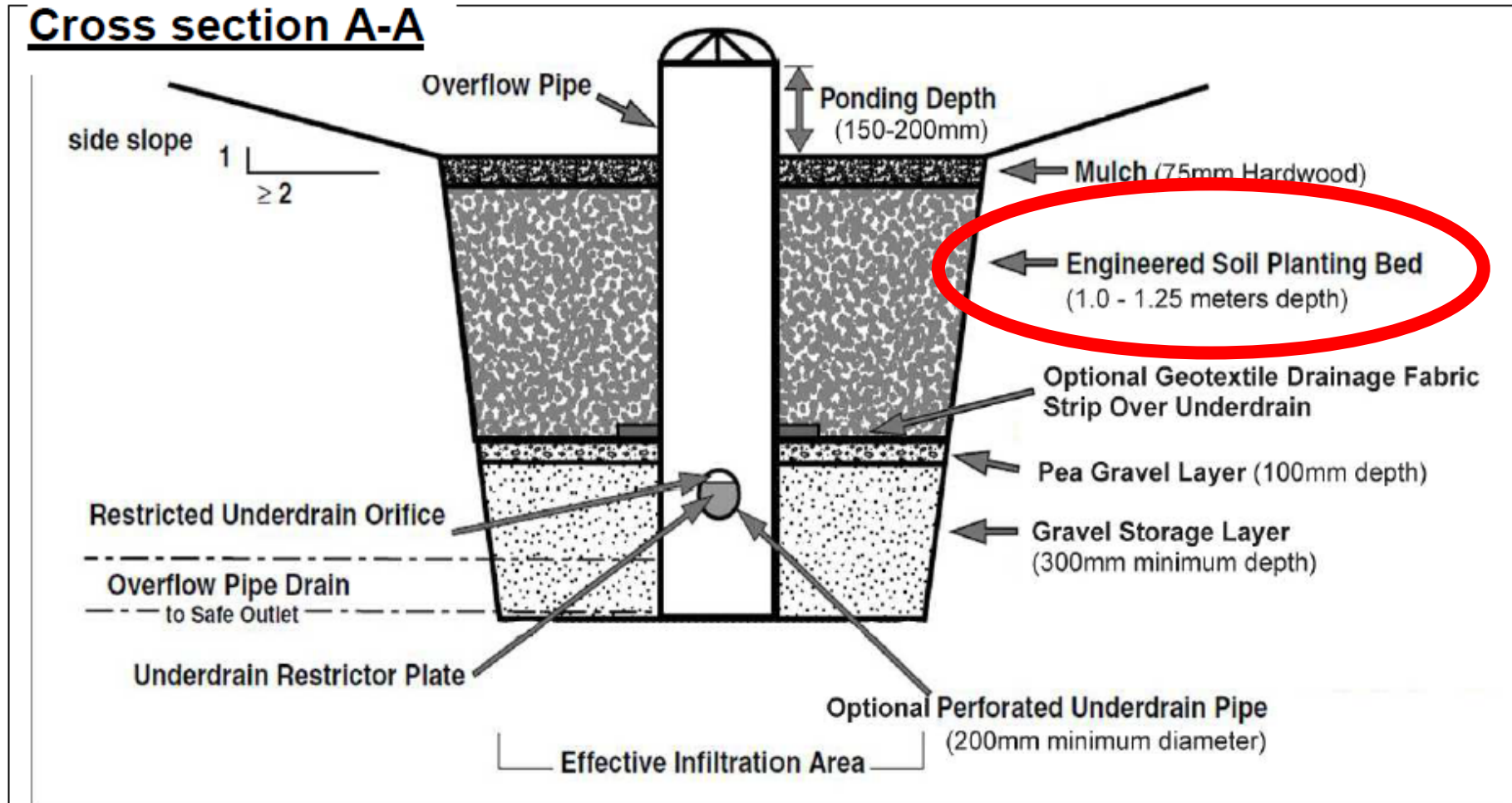
- Looking to replace up to 85% sand component of engineered bio-soil with processed recycled glass
- Specifications for engineered bio-soil from Toronto Resource Conservation & Credit Valley Conservation are in place

- Examples of bio-retention cells that use bio-soil:
  - Parking lot islands/edges
  - Landscaping areas
  - Parks
  - Storm water planters
  - Curb extensions
  - Rights of way/median/edges





## Installation Example:



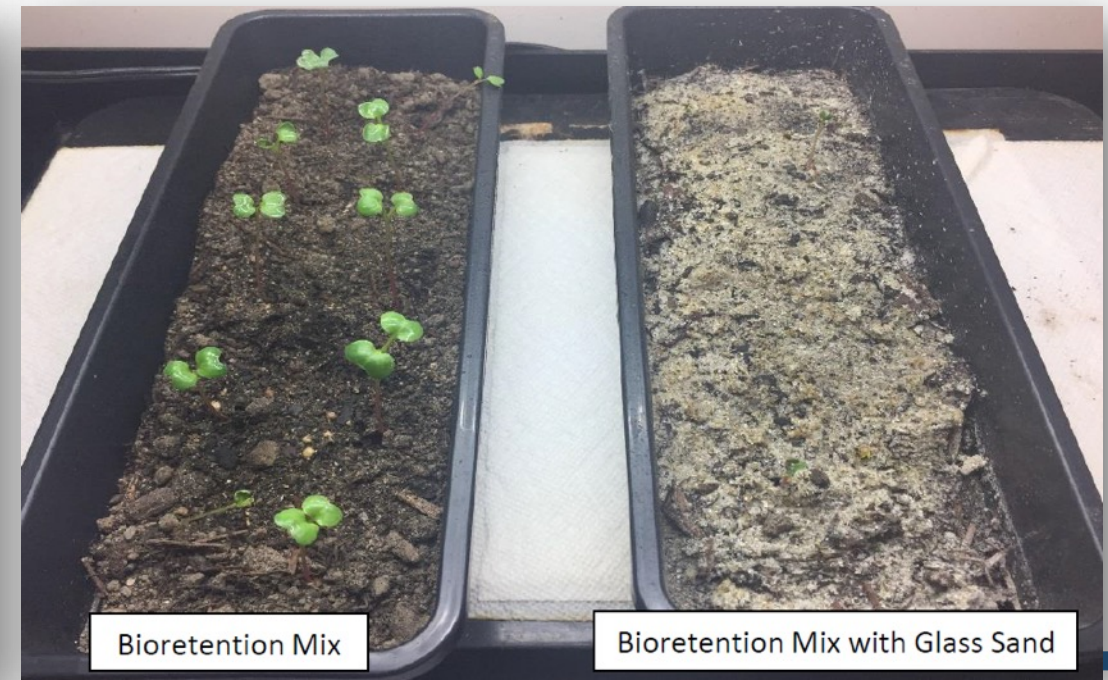
## Task 1 – Preliminary Findings (1)

- Review of soil media specifications, lab testing & greenhouse growth trial
  - Completed various glass production runs using different mesh screens
  - 16 mesh ( 1.19 mm to 0.037 mm) blended glass production is the size range used for the tests.
  - Further blends to be produced & tested
  - Chemical testing to date shows no issues with using recycled glass
  - Confirmed no silica in processed glass



## Task 1 – Preliminary Findings (2)

- Mixed success with germination tests in laboratory to prove material with glass sand can grow plants
- Second growth test results were not as favourable
- Sodium Absorption Ratio (SAR) is too high & may be impacting growth
- Carrying out additional growth tests



## Project Next Steps

- Task 1 – Further lab tests to confirm if growth is viable
- Task 2 - Demonstration of effectiveness through field plot studies
- Task 3 - Economic evaluation
- Task 4 - Final report (early 2019)

CIF 861

## Optical Sorters to Improve Fibre Quality

- Opticals programmed to eject OCC/OBB, plastic containers & film plastic
- Ejection rate of 70% for OCC/OBB & 58% for plastics operating at 12 tonnes per hour throughput per unit
- Overall contamination in news stream is approximately 12%.
- Without the opticals, contamination would be over 30%



# Fibre Optical Sorters





Conveyer moving ejected materials to new sort line

Vibratory feeder before the optical sorters



## Current Challenges:

- The Chinese National Sword Program & the Changing Fibre Stream
  - Very few MRF's able to meet new specifications of 0.5% prohibitives & 1-2% outthrows
  - About 50% of incoming stream is only ONP, the balance is OCC, OBB, metal, plastic & other contaminants
  - Alternative markets include India, Indonesia, Korea & Vietnam but these countries also tightening specifications
  - Niagara still having challenges meeting targets
- Improvements being considered to improve quality:
  - Magnets for post sort paper to allow staff to focus on removal of other items such as OCC, OBB, aluminum & plastics
  - Additional sorting staff

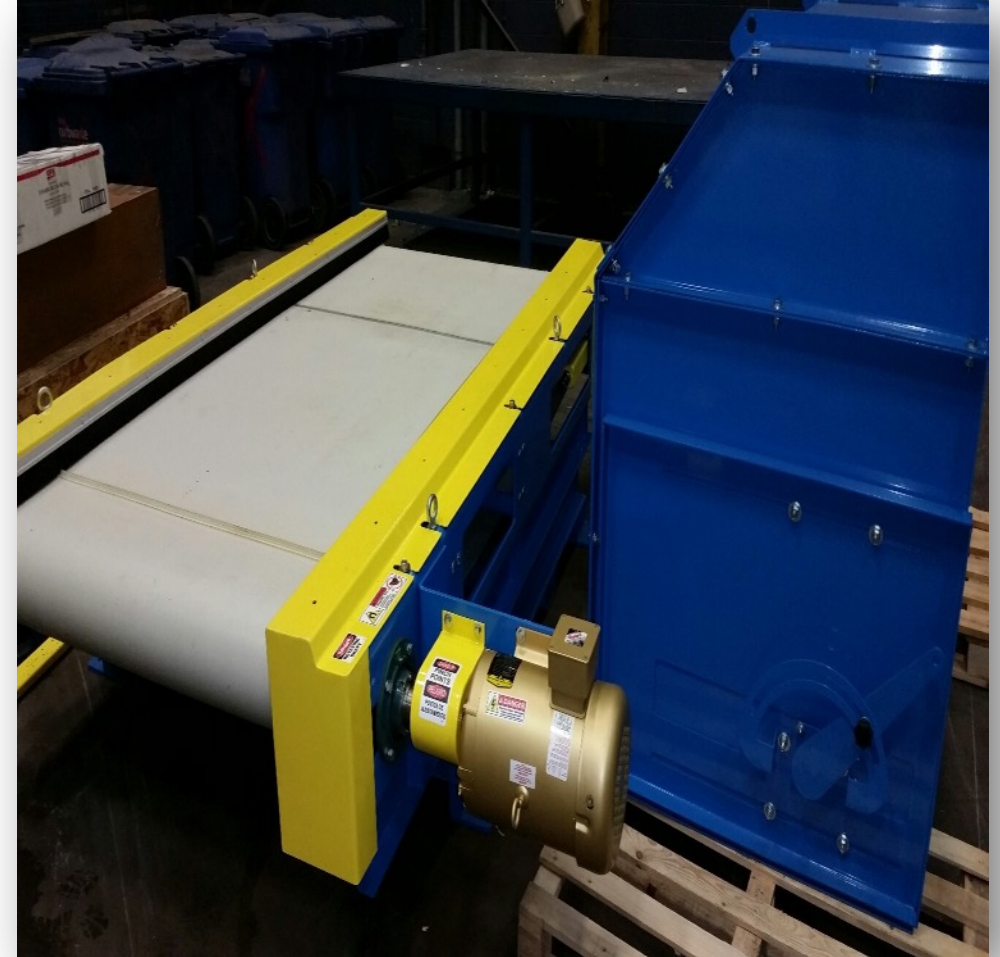


## Other Innovative MRF Solutions (1)

CIF 821.3.3

### Eddy Current Separator

- Upgraded to a 48 inch wide unit in 2014 & added a QC conveyor in 2017
- Goal was to produce A-Grade aluminum valued at \$440 per mt premium over B-Grade
- \$118,000 cost
- \$41,000 CIF funding
- 0.5 year payback



## Other Innovative MRF Solutions (2)

CIF 821.3.1

### Polystyrene Densifier

- Added in Feb 2016
- Goal to remove polystyrene from mixed plastics to increase value of mixed plastic & maintain market
- \$227,000 cost including system integration
- \$24,000 funding from CIF
- \$17,000 funding from CPIA
- 2.5 year payback





# **Equipment Investment: What Makes Sense Today?**

## **CIF Project #971 - BRA MRF Performance Study**

Francis Veilleux  
Bluewater Recycling Association



# Project Highlights

- Project goal:
  - Conduct a performance assessment of the BRA MRF
  - To provide a range of alternative solutions to improve sorting efficiencies
- Impacts:
  - To improve commodity recovery & grade quality
  - To increase revenue
- More information:
  - [francis@bra.org](mailto:francis@bra.org)
  - [www.bra.org](http://www.bra.org)



# Why This Project?

- Single stream facility launched in December 2009
  - Way overdue for its Half Life Adjustment
- Noticeable Performance Changes
  - Result of evolving tonne
  - Material changes & presentation
  - Automated collection



# Project Steps

- Review MRF technology & methodology
- Determine expected performance standard
- Analyze equipment maintenance records
- Evaluate production downtime reports
- Review material composition & commodity markets
- Analyze all available data
- Determine strategies to improve process performance



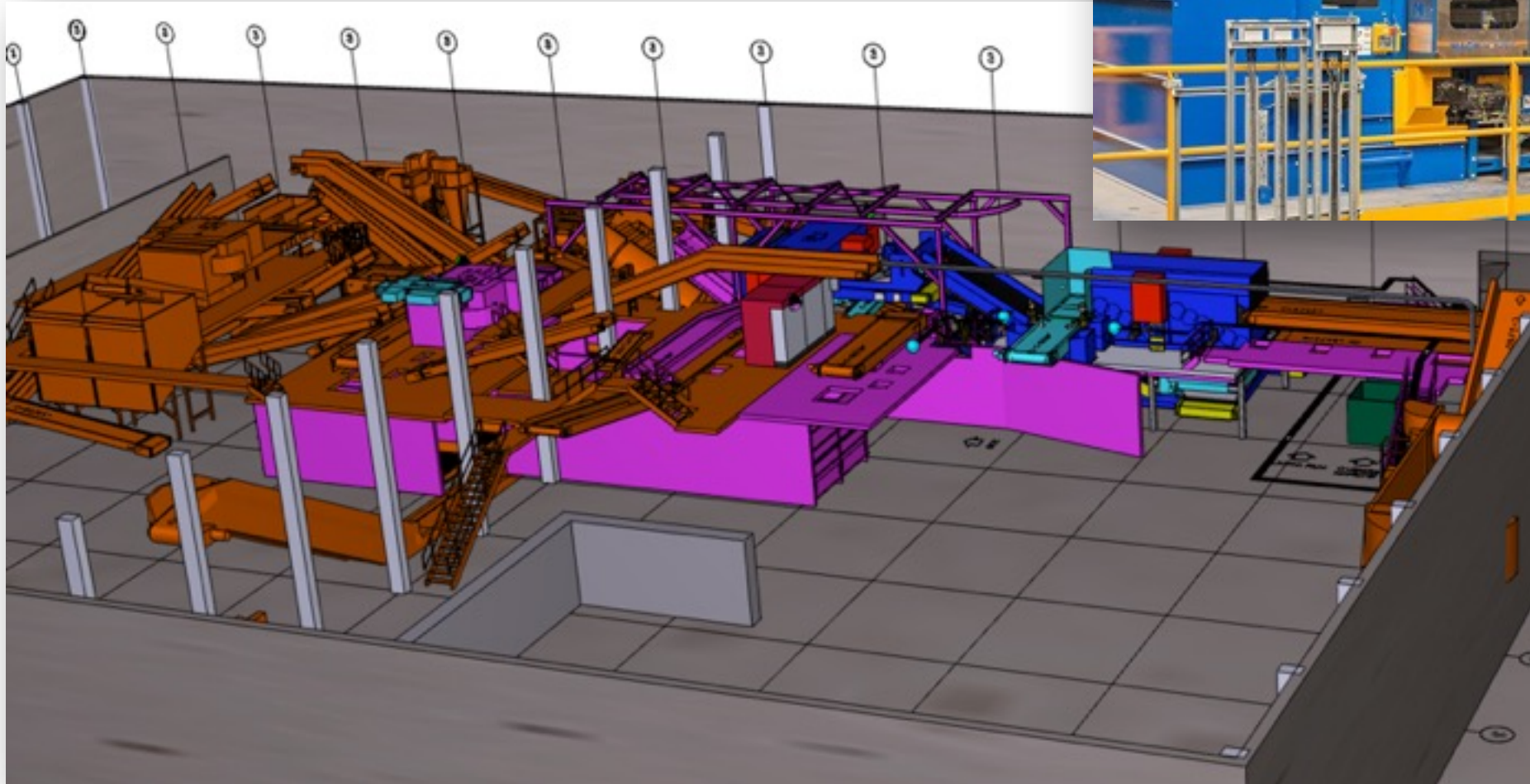


## Equipment Efficiency Findings

Machine	2009	2017
S4 OCC Separator	77%	38%
S8 ONP Separator	82%	26%
OS31 Container Optical		
PET	93%	66%
HDPE	90%	77%
Mixed Rigid Plastic	62%	26%
ECS36 Eddy Current Separator	93%	70%



# Solution



# Results

## Costs

- Study to Confirm Suspicion
  - \$50,000
- Capital Investment
  - \$1.2 million
- Shutdown Costs
  - \$45,000

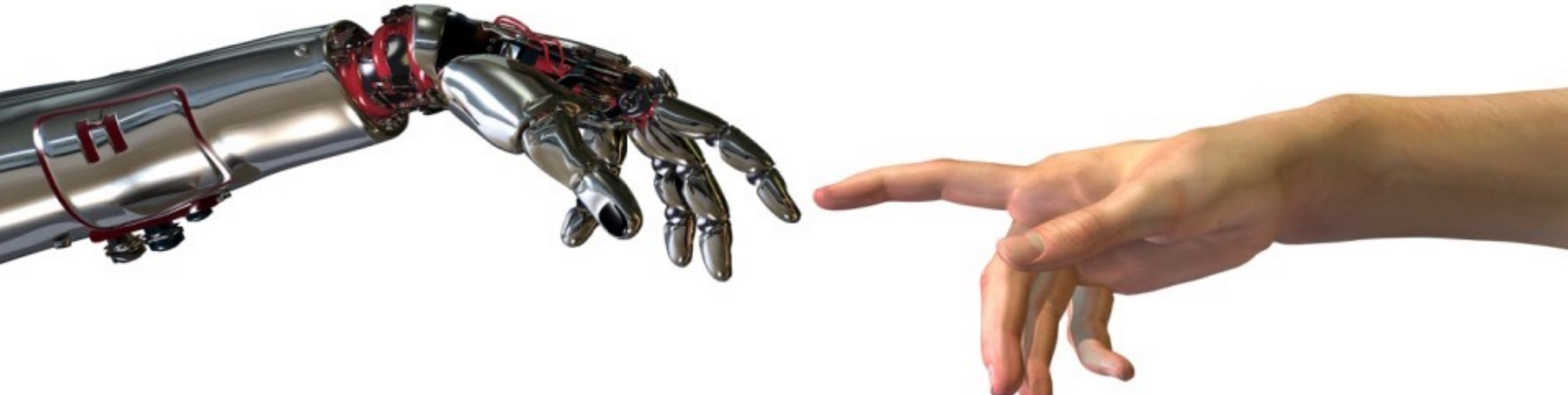
## Savings

- Ability to Meet Chinese Standards
- Increased Revenue
  - \$50,000 per month
- Reduced Maintenance Downtime
  - \$250,000 per year



## Next Steps

- Continue to upgrade equipment, where feasible
- Upgrade container Optical
- Review material list/standardization
- Reduce residue levels





# Residue Control

- It starts with container
- Easy 1-2-3 instructions
- PURE recycling campaign
- Intelligent collection system (RFID, OBC, real time data)
- Driver intervention
- Bin team intervention & follow up
- MRF rejection
- MRF methodology (multiple recovery points)





## Then & Now





## Getting the Message Out



# RECYCLING INFORMATION

## Paper



Newspapers, Magazines, Junk Mail, Boxboard, Cardboard, Flyers, Cartons, Paper Egg Trays, Paper Towel Rolls, Bagged Shredded Paper



## Glass



Clear and Coloured Glass, Food and Beverage Containers with lids and/or labels

## Plastic



All rigid plastic packaging labeled  through   
Retail bags must be bagged and kept separate  
No plastic lids smaller than 3" are accepted  
*See important exceptions below*

## Metal



Aluminum and Steel Beverage and Food Cans, Empty Aerosol Containers and Empty Paint Cans, All Metal Lids

## Not Acceptable Plastic



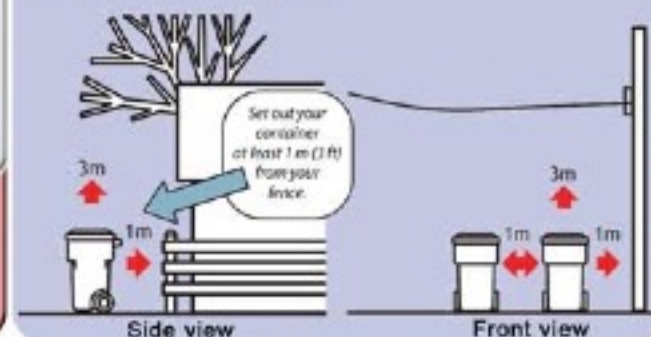
- No foam containers of any kind
- No containers or materials previously used for hazardous materials
- No pails or buckets exceeding a twenty (20) litre capacity
- No biological containers such as plant trays or pots
- No other plastic items such as toys, tools, lawn furniture, etc
- No construction materials such as pipe, hose, tubing, siding, etc

DO NOT bag - except plastic bags & shredded paper  
DO NOT tie recyclables together  
Keep lid closed when not in use to keep water out  
Do not compact materials to ensure complete ejection  
Deposit only clean acceptable materials  
Do not place hazardous materials or hot ashes in the cart  
Wash out periodically with water  
Remove from curb after service  
Do not place bin on an elevated platform, bin might fall off  
Do not place bin on a steep slope - bin may roll away  
Do not tilt or roll container with the lid open  
Do not place sand, soil, or other heavy materials in the bin  
Do not overload this container (max. load 220 lbs or 100 kg)

## BIN PLACEMENT

Please place your bin at the roadside with **at least 3 feet** from any other bins or obstacles such as trees, cars, or mailboxes. Do not place the bin onto the road surface.

Bin lid opening should be facing the street while the bin handle should face the house.







www.bra.org  
800.265.9799

# PURE RECYCLING



## RECYCLE ONLY PRINTED PAPERS AND PACKAGING Loose in your Recycling Bin

### Paper



Printed Paper  
loose

### Boxes



Boxes and  
Cardboard  
flatten

### Cans



Aluminum and  
Steel Cans  
empty and rinse

### Plastics



Kitchen, Laundry,  
and Bath:  
Bottles & Containers  
empty and replace cap

### Glass



Bottles and Jars  
empty and rinse

# Sort Trash Out Please!



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)

**Do not include any items just because they are made or contain paper, metal, plastic or glass.**  
Let's keep our recyclables clean and pure. For more information call us or visit our website.

# Recyclable Materials

## Accepted Paper

- Loose newspaper, flyers, catalogues, magazines, no plastic wrapping
- Telephone books, paper back books, books with no hard cover
- Cardboard, boxboard, cartons, paper egg cartons, paper towel rolls
- Paper junk mail, letters, envelopes, brochures, paper bags
- Shredded paper in tied clear plastic bags



## Accepted Glass

- All clear and coloured glass food and beverage containers
- Lids, caps, and corks should be removed
- Labels can stay on
- Organic materials must be emptied



## Accepted Metal

- Aluminum and steel beverage and food cans
- Clean aluminum foil, plates, and containers
- Empty aerosol containers
- Empty metal paint cans
- All metal lids and caps



## Accepted Plastic

- All clean rigid plastic packaging labeled through
- such as containers, bottles, tubs, clam shells, lids over 3 inches
- Grocery and retail bags stuffed in one tied bag
- See important exceptions below



## Not Accepted Materials

- No foam containers of any kind
- No containers or materials previously used for hazardous materials
- No pails or buckets exceeding a twenty (20) litre capacity.
- No biological containers such as plant trays or pots.
- No other household items such as toys, tools, lawn furniture, etc.
- No construction materials such as pipe, hose, tubing, siding, etc.
- No scrap metal of any kind.



If in doubt, leave it out and check it out  
at [www.bra.org/recycleguide.html](http://www.bra.org/recycleguide.html)



www.bra.org  
800.265.9799

# KEEP ON RECYCLING

## RECYCLE THESE PRINTED PAPERS AND PACKAGING LOOSE IN YOUR RECYCLING BIN

### Cans



Aluminum and Steel Cans  
empty and rinse

### Cartons



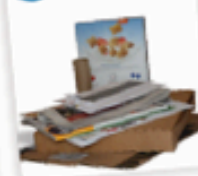
Food and Beverage Cartons  
empty and replace cap

### 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](mailto:info@bra.org)

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



# Recycling Hub

[Recycling Guide](#)
[Plastics](#)
[Supplies](#)
[What Becomes What?](#)
[Handouts](#)

## The Recycling Guide

### A Comprehensive Guide to All Products

We have listened to the concerns and interests of you the resident, and have officially launched an exhaustive list of almost any material you can think of - describing whether it can be composted, recycled, reused, or reduced! You will enjoy having this handy guide bookmarked for future reference next time you are confused. Give it a shot today!

## Plastics: Uncovered

### All You Need To Know About This Material

The Association understands the frustration of residents when it comes to recycling plastics. The numbered codes, different layers and confusing variations can result in headaches when left in the recycling bin after pickup. Click here to find out more about plastics, what can be recycled and why some simply can not. Also you will be happy to know that BRA can accept more plastics than ever!

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Collection Status

## RECYCLING HUB

The heart of the Association lies in our recycling initiative.

### My SERVICES

This area will allow you to view your local municipal program information including all the different services available to you, including your schedule. You will have to identify which municipality you are from to access the information.

[View Section +](#)

### The Bluewater MATERIAL GUIDE

View our comprehensive guide to most products! This is an fairly extensive list of materials where we provide advice on how to best manage them by identifying whether they can be composted, recycled, reused or reduced!

[View Section +](#)

### Our Containers

The Association has a wide range of suitable containers for your recycling, compost and waste needs. Visit this section to accurately gauge the size of container your household requires, and learn more about the technology behind them!

[View Section +](#)

### TOP 10 PROBLEMS

Ten 10 Problems

### recyclecoach

Recycle Coach

### Disette

Disette

# Recycle Coach is now available on Amazon Alexa and Google Home.

Powered by Recycle Coach

For any inquiries contact us at 1.800.265.9799 or [info@bra.org](mailto:info@bra.org).

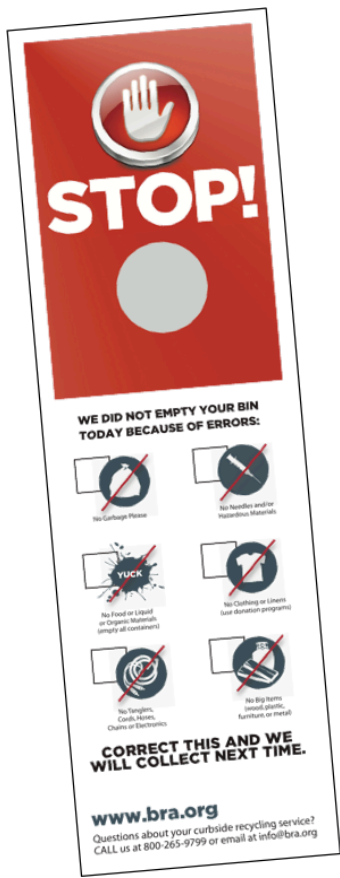
**Message Type: Program Changes**

To filter the types of news you would like to receive, please go to Settings > Communication Settings.

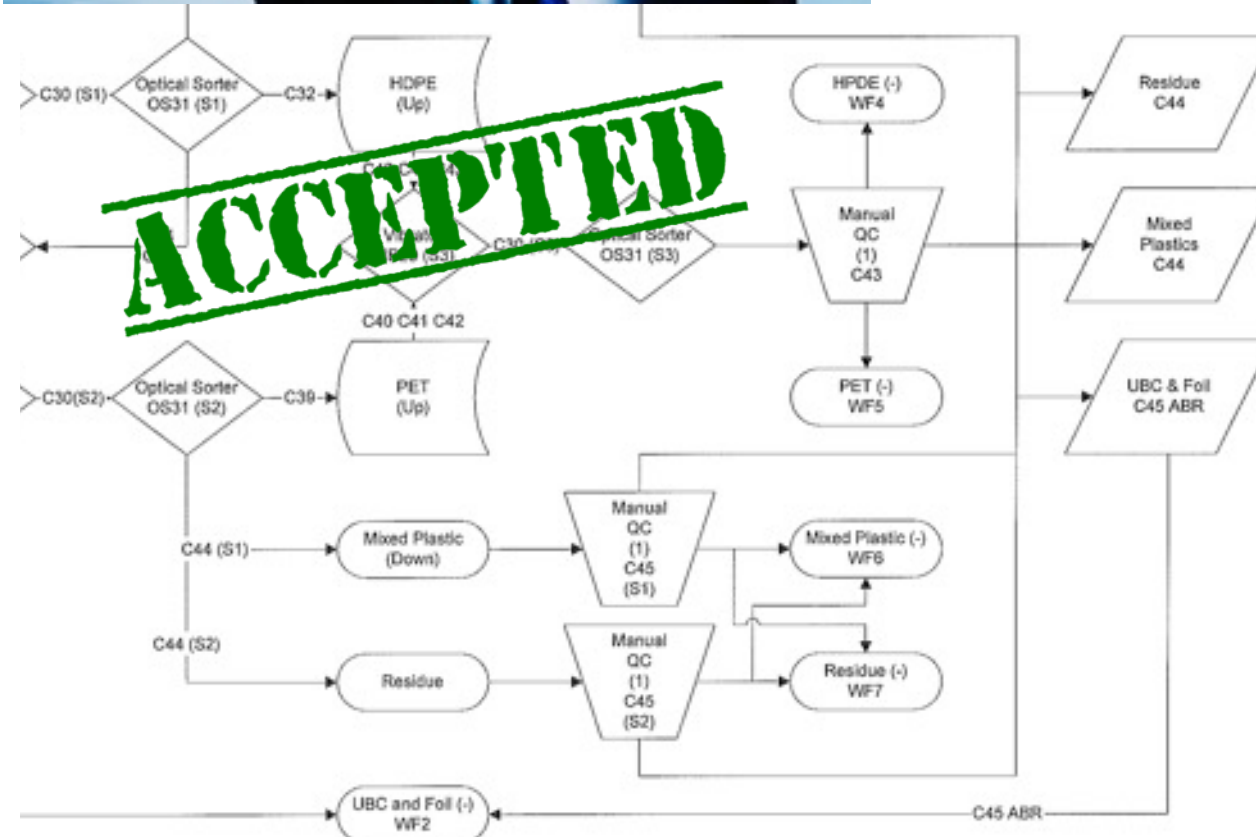
### Collection Schedule

April 2016

S	M	T	W	T	F	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7









CONTINUOUS  
IMPROVEMENT FUND

# Closing Remarks



# Thank you!

Please complete ORW survey next week

ORW slides & webcast archive: [thecif.ca/ontario-recycler-workshop-orw/](http://thecif.ca/ontario-recycler-workshop-orw/)

For more information:

