


RESOURCE
RECYCLING CONFERENCE


Single Stream Recycling ... Local Government Perspective

Presented by
Harvey Gershman, President
Gershman, Brickner & Bratton, Inc.



"Earth Day 1970 first inspired my career to focus on helping do better things with waste. And, I have been able to do just that for the past 40+ years."

Harvey Gershman
President and Co-Founder
Specialties: Strategic thinking and planning; procurement and negotiation assistance; system administration; change management; and project financing coordination.



September 1, 2016

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Quality – Value – Ethics - Results

Established in 1980

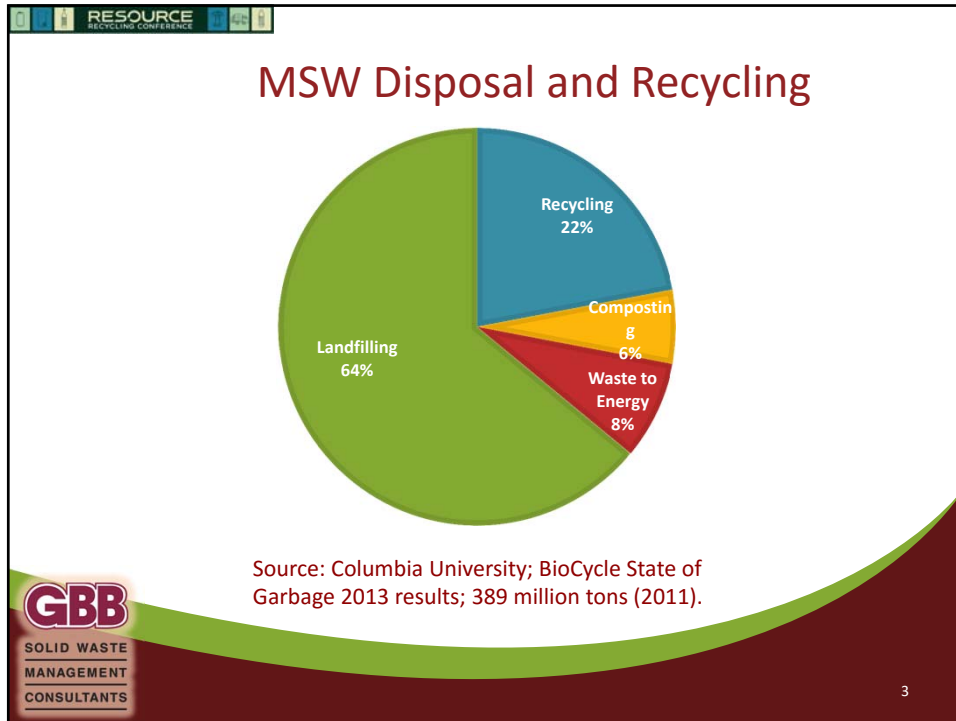
Solid Waste Management and
Technology Consultants

Helping Clients Turn Problems into
Opportunities

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Residential Recycling

- 9,000 + Curbside Recycling Programs
- 532 Material Recovery Facilities (MRF) 2016 (Source: GAA)
 - Single Stream Processing greater than 75% of tonnages!



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3rd Wave of Recycling

- No longer a movement, it's a modern amenity
- Residents are CUSTOMERS, not PARTICIPANTS
- CUSTOMERS expect to get something



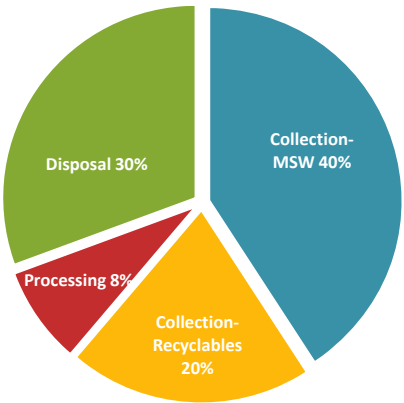
Image source: DesignSponge.com



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Cost of Collection and Disposal




Category	Percentage
Collection-MSW	40%
Disposal	30%
Collection-Recyclables	20%
Processing	8%

Full cost ranges:

\$100 to \$400 per ton

\$10 to 50 per HH per month

Source: GBB, 2016



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Issues

- Need to recycling more...it's the state goal
- Our residents aren't accurate recyclers
- It cost much more \$\$\$\$ now
- Contracting approach often broken
 - Collection and processing services are bundled
 - Quantity and value of recyclables declining
 - Market value risk not shared
 - Sophisticated MRFs cost more

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Contamination Causes

- Generator Problems
 - Confused
 - Poor communications
 - Too many targeted recyclables
 - Maybe this is recyclable!
- Operator Problems
 - PAYT waste cart too small
 - Dual compartment collection
 - Glass!

MENU the ONION SEARCH Q TOP HEADLINES

More Cities Providing Bins For Materials That Look Recyclable



NEWS IN BRIEF September 10, 2015

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Wishful Thinking

- Some contamination comes from the best intentions:
 - The Over-enthusiastic Recycler
 - Good intentions; errs on the side of recyclable
 - “Well, it’s made of plastic...!”
 - The Wish-Cycler
 - “Advanced amateur” creating new supply chains
 - “The Saver” can’t bear to trash anything, so includes old lamps, an out of date toaster, or garden hoses



Image source: alicarr.com

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The Tragedy of the Plastic Bag

- The demonization of plastic bags is hard at work on wishful recyclers
 - “But it’s plastic!” “They’ll figure it out.”
“It’s such a shame I keep forgetting my reusable bags!”




Image source: kate-lawson.com

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Examples of Single Stream Contamination Issues



Food Waste & Vegetation

Contaminated Material & Food Waste

ONP Screen Jammed w/Plastic Waste

Household Trash, Electronics and Hoses

Source: ReCommunity

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How to Fix/Improve Single Stream Recycling

- Make collection services highly efficient
 - Upgrade hard and soft technology
 - Procure collection separately from processing
- Carts, EOW
- Robust public education and enforcement - both hard and soft
 - Knock on doors
 - Use all the media approaches
 - Train the kids
 - Ongoing positive reinforcement and enforcement
 - Reuse/Recycle:
<http://tools.recyclingpartnership.org/>
- Help get the right size cart selected for PAYT
- Glass containers recycling drop offs and deposit legislation



City of San Jose,
CA set outs;
photo: GBB 2015

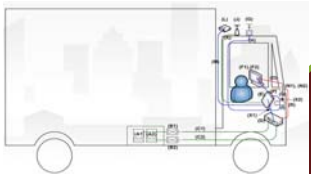
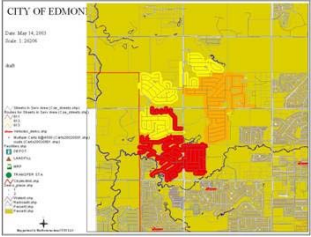
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Driving Down Collection Costs

- Use technology
 - Trucks
 - Computerized routing
 - Asset management
 - Customer service
- Closed market contracting
- Economies of scale
- Include money in service contract for public education



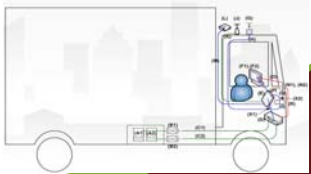
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How to Fix/Improve Single Stream Recycling (cont'd)

- MRFs need upgrades with the “latest”
- Contracting with MRFs
 - Long-term
 - Share market risk
 - If tonnages large enough, consider publicly owned, privately operated
 - Transfer to larger facilities



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Contractor Risk - Service Fee Formula

- $SF = DS^* + OM + PT - RPC \pm OPB$, where
- SF = Service Fee
- DS = Debt Service*
- OM = Operation and Maintenance Expense (including Equipment Replacement Fund contribution)
- PT = Pass Through Costs
- RPC = Recovered Products Credit (sharing of revenue often applied)
- OPB = Other Payments Balance
- OM = Labor + Benefits + Parts and Supplies + Equipment Replacement + Office Supplies + Communications + Delivery + Outside Contractors + Leased Equipment + Disposal Charges + Insurance/Bonding + Management Fee + Return on Equity *+ Risk Factor
 - * If privately owned/operated

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Ultimate Objectives



- Contractor makes a fair, reasonable profit
- Risks fairly allocated fairly
- Municipality pricing reasonable pricing with protections
- Both sides feel good about the 'deal'
- More recycling for less

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Add More Materials to the Cart

- Used clothing in specially marked strong bags (Town of Shelby, MI photo)
- Paper fiber cartons (Carton Council photo)



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Go for the Film...to Retailers!


- Encourage (and empower) a broader mix of plastic film recycling through drop offs at retailers
 - Dry cleaning film
 - Online shopping packaging
 - Overwrap on paper goods and multi-packs
 - Food bags

Source: Trex, Commercial Recycling Partnerships
<http://www.trex.com/recycling/recycling-partnerships/>




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WHAT WILL BE THE NEXT BIG THINGS IN THE U.S.?




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**IT'S NOT THE MONEY,
IT'S THE MONEY!!**



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“One Bin for All” = Mixed Waste Processing Facilities

Reports from American Chemistry Council

- The Evolution of MWPF (1970-Today)
- Supplemental Report: Technology and Equipment Guide



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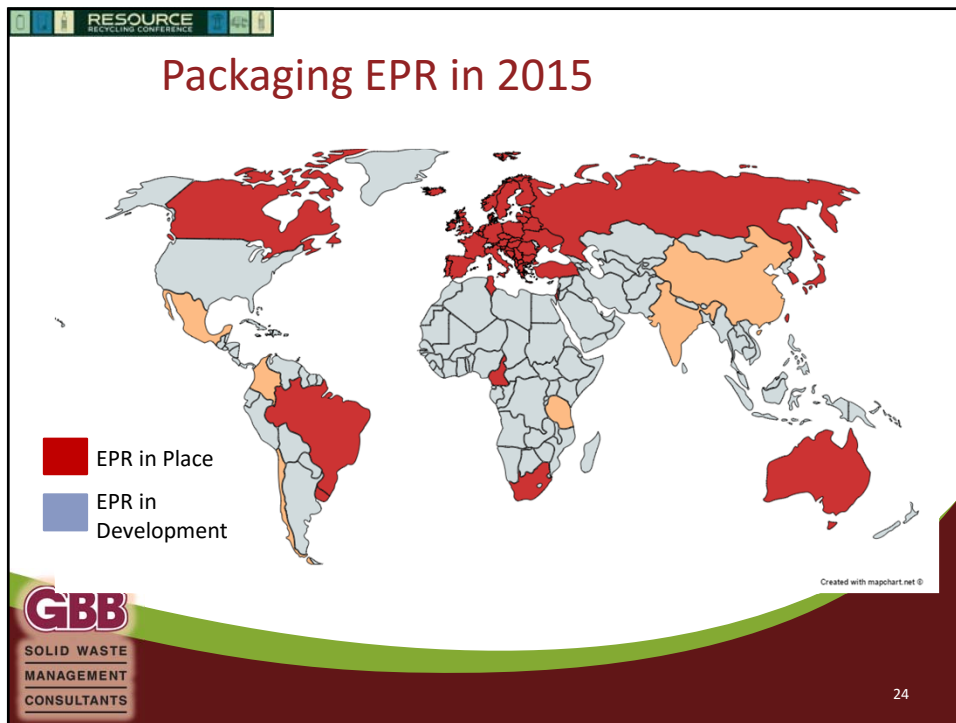
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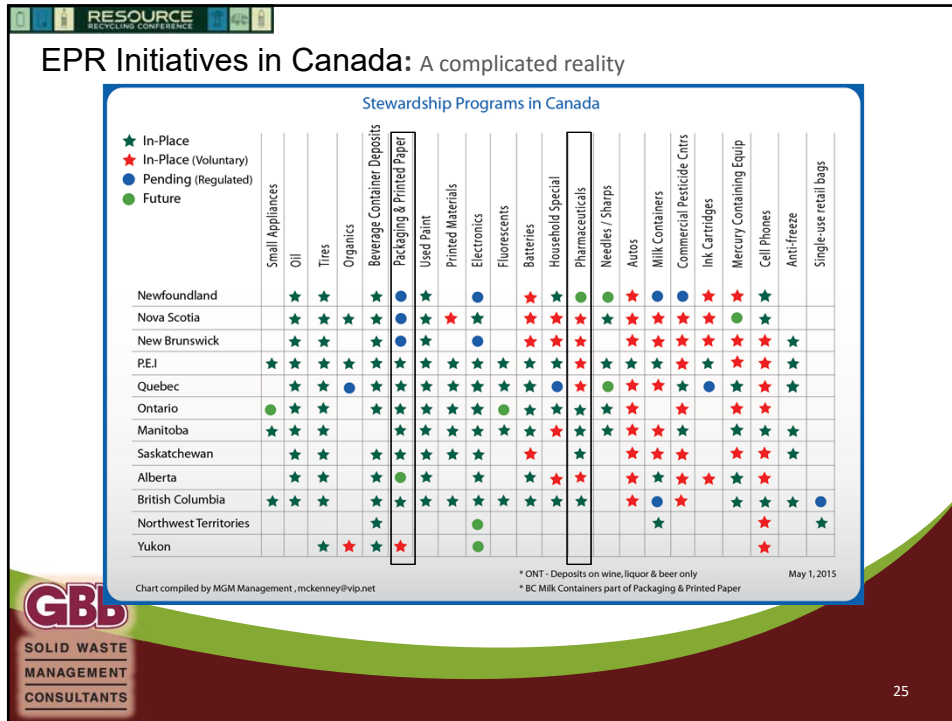
Extended producer responsibility (EPR)

- Courtesy of:
 - Victor Bell, President, EPI
 - vbelle@enviro-pac.com
 - www.enviro-pac.com
 - www.redi-point.com

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Canadian Packaging Fee Comparison (per 1000 units, in USD)


Canadian Province Fees for 2013 Sales	PET Bottle	Glass Bottle	Paper + Plastic + Multilayer Combo	Plastic Pouch
Ontario	\$5.94	\$7.33	\$3.04	\$5.98
Quebec	\$9.19	\$22.50	\$5.59	\$11.76
British Columbia	\$12.94	\$57.91	\$8.49	\$12.26
Average Fees	\$9.36	\$29.24	\$5.71	\$10.00

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**IF ITS NOT RECYCLABLE OR NEEDED
FOR THE ORGANICS PROGRAM...**

IT'S FUEL!



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Thank you!!

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