

# City of Hamilton

## Public Works Committee

### Moving Hamilton Towards a Zero Plastic Waste Plan

#### Agenda 11.1

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V.P. Sustainability

May 13, 2019



**Association canadienne de  
l'industrie des plastiques**

since • depuis 1943

**Canadian Plastics  
Industry Association**

# Today's Presentation

## Achieving Zero Waste

- About CPIA
- Plastics Value To Society
- Managing Plastics – Unmet Need
- Ecosystems & Industry Commitment
- Hamilton Motion & Approach

# The Value of Plastics



Plastics packaged foods last longer, reducing wastage



Use of plastic pipes facilitates clean drinking water supplies



Plastic use in vehicles has reduced CO<sub>2</sub> emissions from transport



Plastic enables life saving medical devices like surgical equipment and drips

# Example – reduces food waste



Fresh for **14 days**



40%+ thrown out; plastics keep food fresh longer



Grapes in-store wastage  
**DOWN by 20%**



New potatoes  
in-store wastage  
**DOWN to <1%**



Bunches of identical bananas stored for 7 days loose and in a modified atmosphere bag

Source: Packaging in Perspective, Advisory Committee on Packaging, Supported by INCPEN

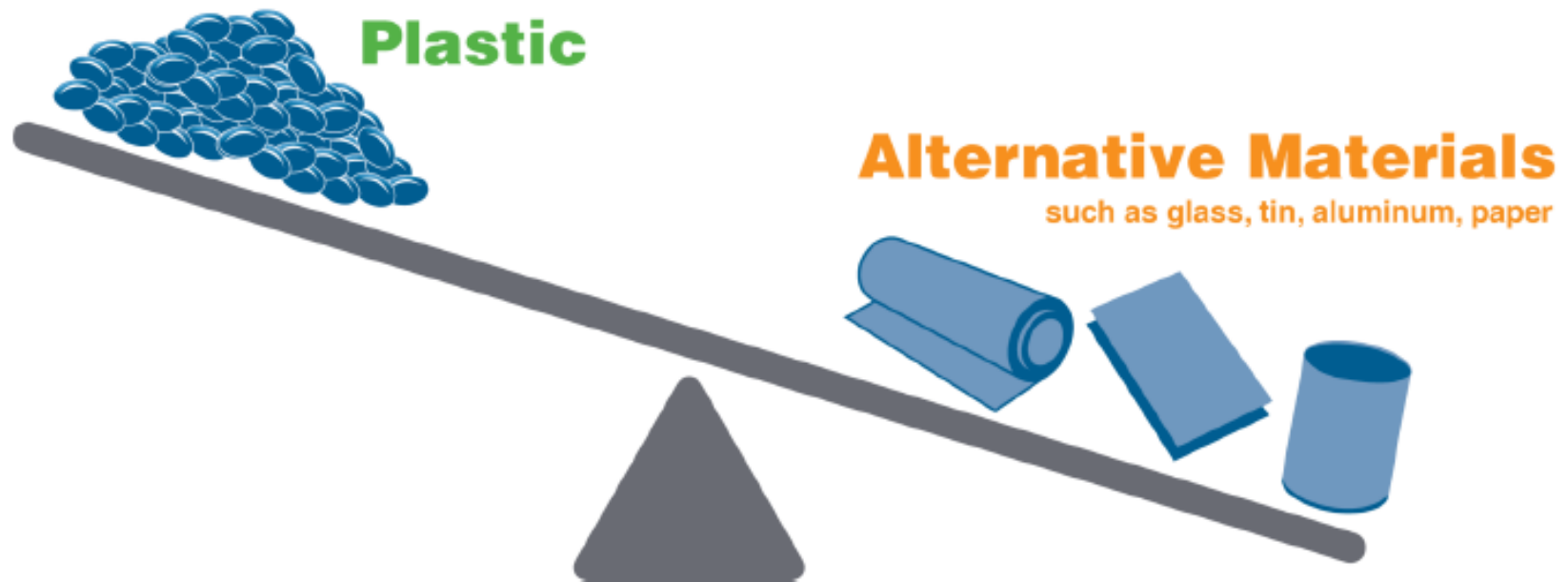
<http://www.thefactsabout.co.uk/files/98201010542packaginginperspective.pdf>



# Plastics' contributions – providing many benefits



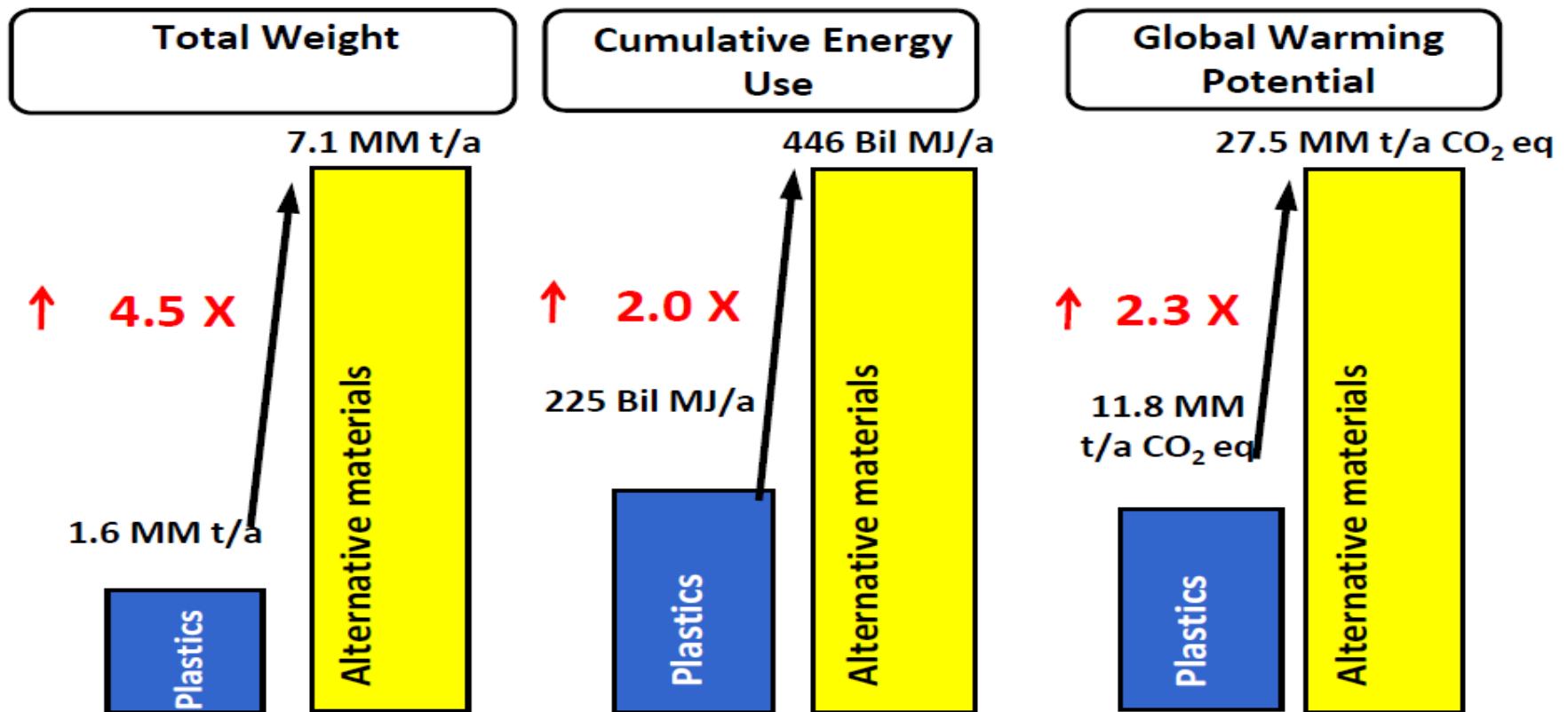
# Plastics reduce environmental, economic & social costs



The environmental cost of plastic in consumer goods is **3.8X less** than alternative materials

# Plastics vs. Alternatives

## Plastic Packaging Reduces Mass, Energy Use and GHG Emissions



Source: Impact of Plastics Packaging on Life Cycle Energy Consumption & Greenhouse Gas Emissions in the United States and Canada, Franklin Associates, January 2014

# Managing plastic waste is an unmet need

About **200 MMT** of plastic landfilled or ending up as litter

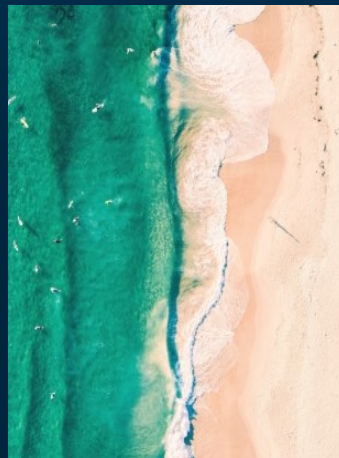


Improper waste management leads to significant leakage into oceans and seas (~8 MMT per year)

By 2025, the ocean could contain **1 ton** of plastic for every 3 tons of finfish



Plastic waste production is expected to **double** in the next 15 years



There is untapped value in post-use plastic that can be used to incentivize collection and reprocessing



# Where does ocean waste begin?



80% OF OCEAN PLASTIC  
BEGAN ON LAND

The infographic features a large '80%' with a donut chart inside the zero, where the blue segment represents 80% of the circle. The background is a light blue sky with three white birds. The bottom of the image shows a dark blue ocean with a white plastic bottle floating in it. The bottle has a red cap and a black label. The land is represented by a red-orange shape on the left.



ALLIANCE TO  
END PLASTIC WASTE

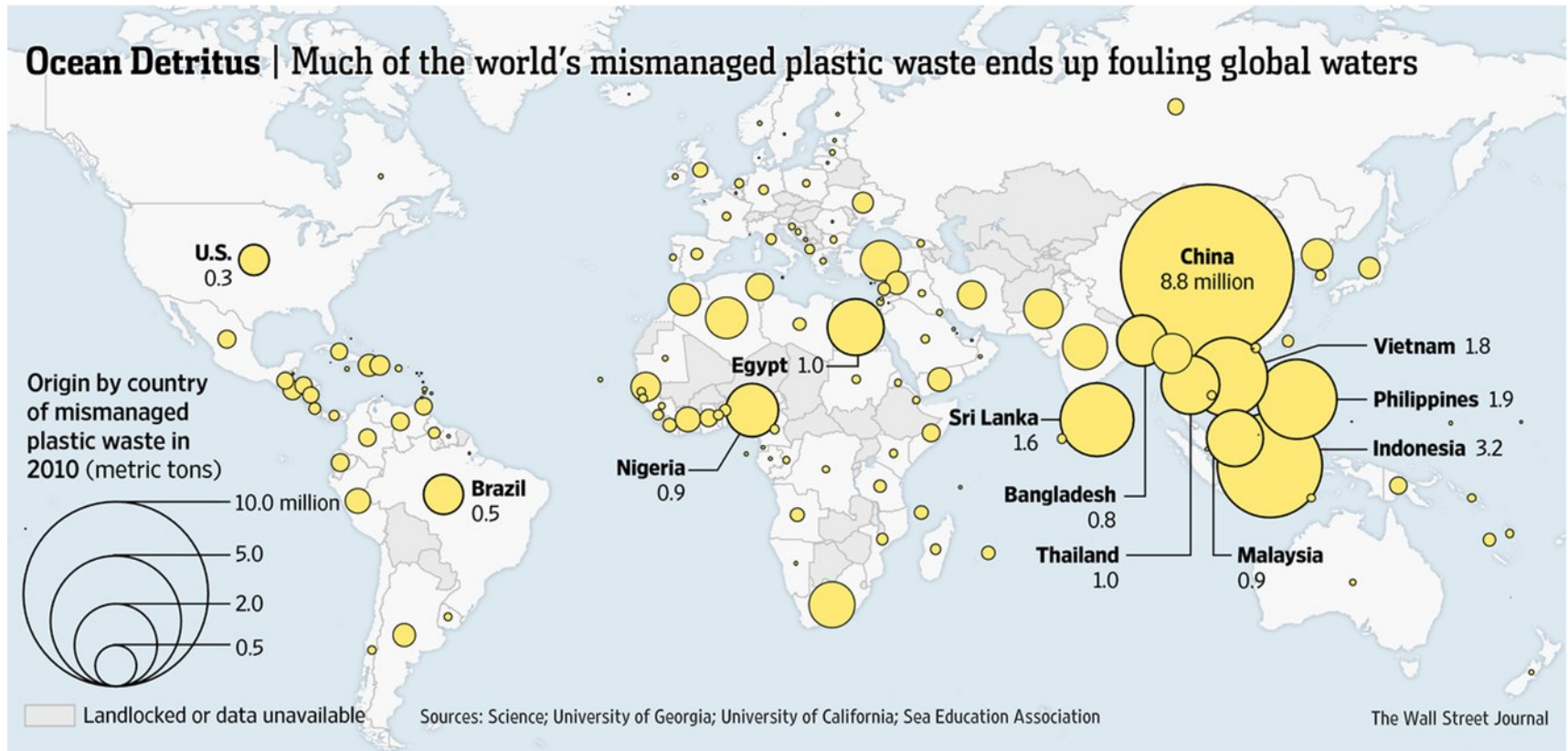
# 10 RIVERS

transport more than 90%  
of river-based plastics to  
the ocean.



ALLIANCE TO  
END PLASTIC WASTE

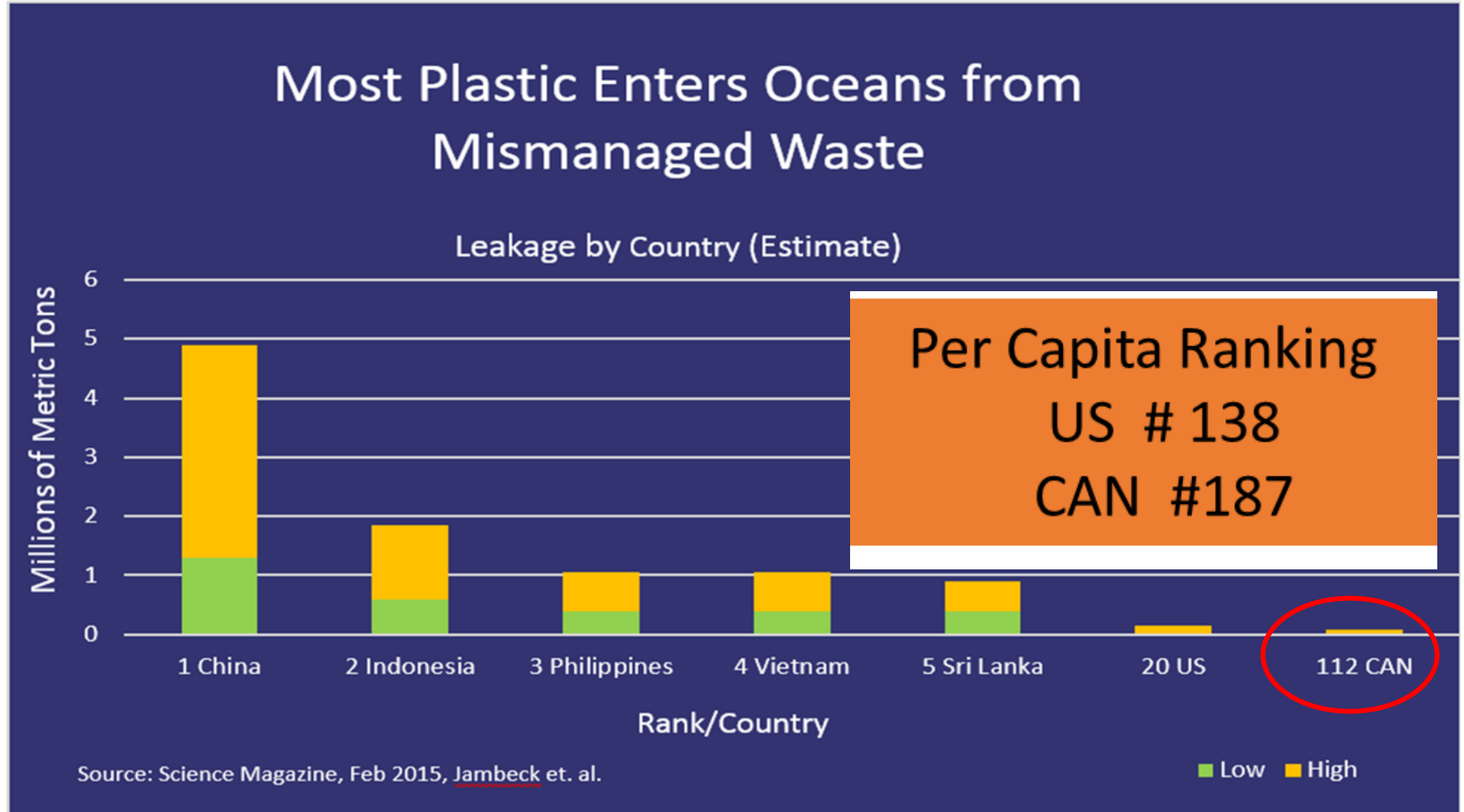
# Commitment to End Ocean Waste Alliance



The Alliance to End Plastic Waste – 30+ companies – some CPIA members

- Focus on hotspots - \$1.5B on initiatives
- Working in partnerships, sharing expertise, four pillars

# Where does marine litter come from?





# G7 Plastics Charter – opportunity for positive change; CPIA commitment



## G7 Commitment:

- Work with G7 countries' on global plastic commitment



# Plastics recovery targets

Canada's plastics industry has established consensus, ambitious goals for plastics recovery:

**MAY 2018**

Set ambitious CE targets

**2030**

100 per cent of plastics packaging  
recyclable or recoverable

**2040**

100 per cent of plastics packaging  
reused, recycled, or recovered



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**CIAC | ACIC**



# Danger of symbolic action

**68% say ban -  
'emotion based'**

## Plastic Bag Bans Are Based on Hype, Not



When asked best way to reduce plastic waste, **most favourable answer was recycling, not bans**

- Government better waste management – 12%
- Better education – 15%
- Ban certain plastic products – 22%
- **Recover & reuse plastic products – 45%**

# Hamilton Motion – needs science and facts

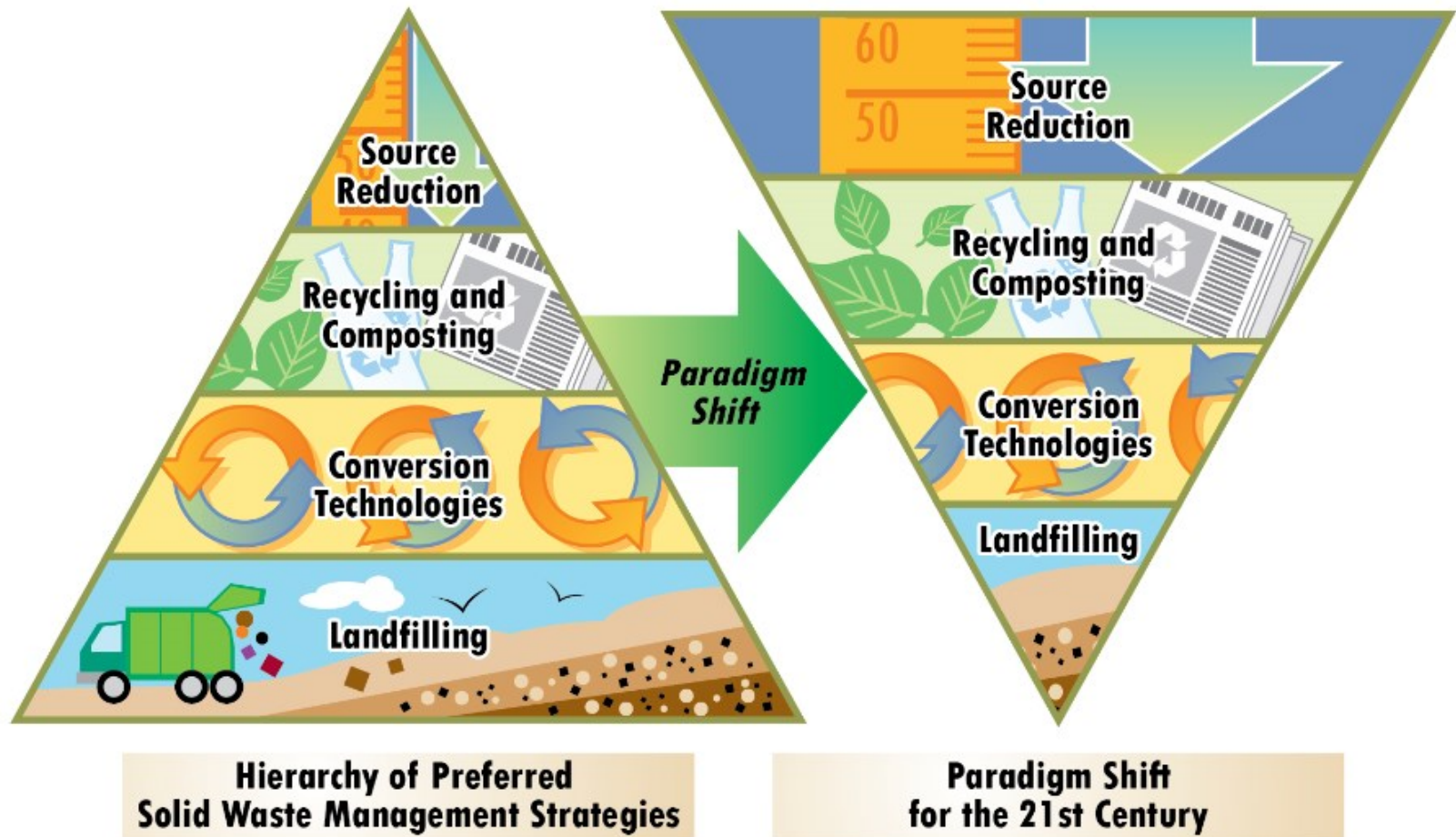
## 1. Key Recommendation & Amendment to the Motion:

**Key Principle:** Decisions made in the name of the environment should be based on science and fact

- **The City is committed to developing good policy based on the science and facts.**

- The City of Hamilton establish an expert working group to advise staff and Council on the facts and science to manage all waste and plastics in an environmental and economically sustainable way.
- The City work collaboratively with industry to plan and implement systems and communications that move the City closer to all Zero Waste.

# Time for Greater Collaboration



Reproduced from Waste Advantage Magazine, August 15, 2014

# Hamilton Motion – needs science and facts

## 2. PS Foam Recycling

- Hamilton removed foam from collection **on incomplete information to Council on markets**
- Hamilton foam shipped to end markets and was recycled – did not end up in landfill.
- New 21<sup>st</sup> Century molecular recycling markets coming on stream to recycle PS Foam into high value materials

### Recommendation :

- **Re-implement collection of PS foam packaging to support the Circular Economy and local market development.**
- **Hamilton examine new molecular recycling markets that will produce new materials for roads, oils, waxes and printing inks.**



# Hamilton Motion – needs science and facts

## 3. Black Plastics Recycling

- Black Plastic misinformation in the media & Hamilton motion
- Black plastics are recyclable – Revital Polymers Sarnia and EFS Plastics Listowell - <https://www.newswire.ca/news-releases/sarnia-plastics-recycler-wants-municipalities-blue-box-black-plastic-683846541.html>
- Technology exists to sort black plastics  
<https://www.plastics.ca/PlasticTopics/RecyclingPlastics/BestPracticesCaseStudies>

## Recommendation :

- Staff examine existing markets for black plastics locally.
- Staff examine technologies and/or manual sortation of black plastics

# Hamilton Motion – needs science & fact

## **4. Policy Development for Zero Waste (not just plastics)**

- This is not a plastic system - must take a holistic view and considered a resource recovery system if we are to aim for “Zero Waste” – air, water & land
- The Hamilton motion if based on other uninformed municipal actions will increase the City’s costs to manage waste and negatively impact the environment.

### **Recommendation:**

- **City of Hamilton take a holistic approach to manage all waste and litter with a goal to reduce and approach Zero Waste Goals.**
- **Examine a Resource Recovery Framework that use complimentary approaches of Circular Economy and Sustainable Material Management**

# Hamilton Motion – needs science & fact

## 5. Policy Development – Regulatory Options

- Restrictions on all recyclables to landfill from residential, industrial, commercial and institutional waste streams to increase diversion.
- Must be implemented with care to ensure market capacity exists.

### Recommendation:

- **Implement a waste & landfill restriction on foam and other recyclables from all waste generators to boost diversion and provide a critical mass of recyclable feedstocks for manufacturing and the economy**

# Hamilton Motion – needs science & fact

## 5. Procurement and Recycled Content

- If we are to support waste resource diversion and a circular economy, materials collected need markets to accept them for manufacturing
- Approx. 84% of plastics collected in Canada are recycled in North America with the balance exported until the China Sword program prohibited the import of recyclables - **Reports on Access to Residential Recycling of Plastics** <https://www.plastics.ca/PlasticTopics/RecyclingPlastics/BestPracticesCaseStudies>

### Recommendation:

- **The City implement procurement guidelines for recycled content for plastics and other products to support the development of markets for materials collected.**



# Questions





**We welcome your thoughts and suggestions...**

CPIA website: [www.plastics.ca](http://www.plastics.ca)

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