



*Recycling Council  
of Alberta*

# MSW Options Workshop: Integrating Organics and Residual Treatment/Disposal

Introduction and Background

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Workshop supported by



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# Importance of 3Rs

- ◆ Suite of options available to manage waste
- ◆ 3Rs hierarchy should be followed
  - Reduce, Reuse, Recycle (incl. composting)
  - Important to maximize 3Rs before looking to residuals options



Recycling maximized ✓



Composting maximized ✓



Residuals ?

# 3Rs Program tools

- ◆ Comprehensive programming
  - Recycling, composting
  - Accessible, convenient
- ◆ Economic instruments
  - user-pay systems, financial incentives
- ◆ Bag limits
- ◆ Disposal bans
- ◆ Social marketing approaches



Recycling maximized ✓



Composting maximized ✓



Residuals ?

# Benefits of 3Rs

- ◆ Environmental
- ◆ Social
- ◆ Economic
- ◆ Bring together in full-cost accounting



Recycling maximized ✓

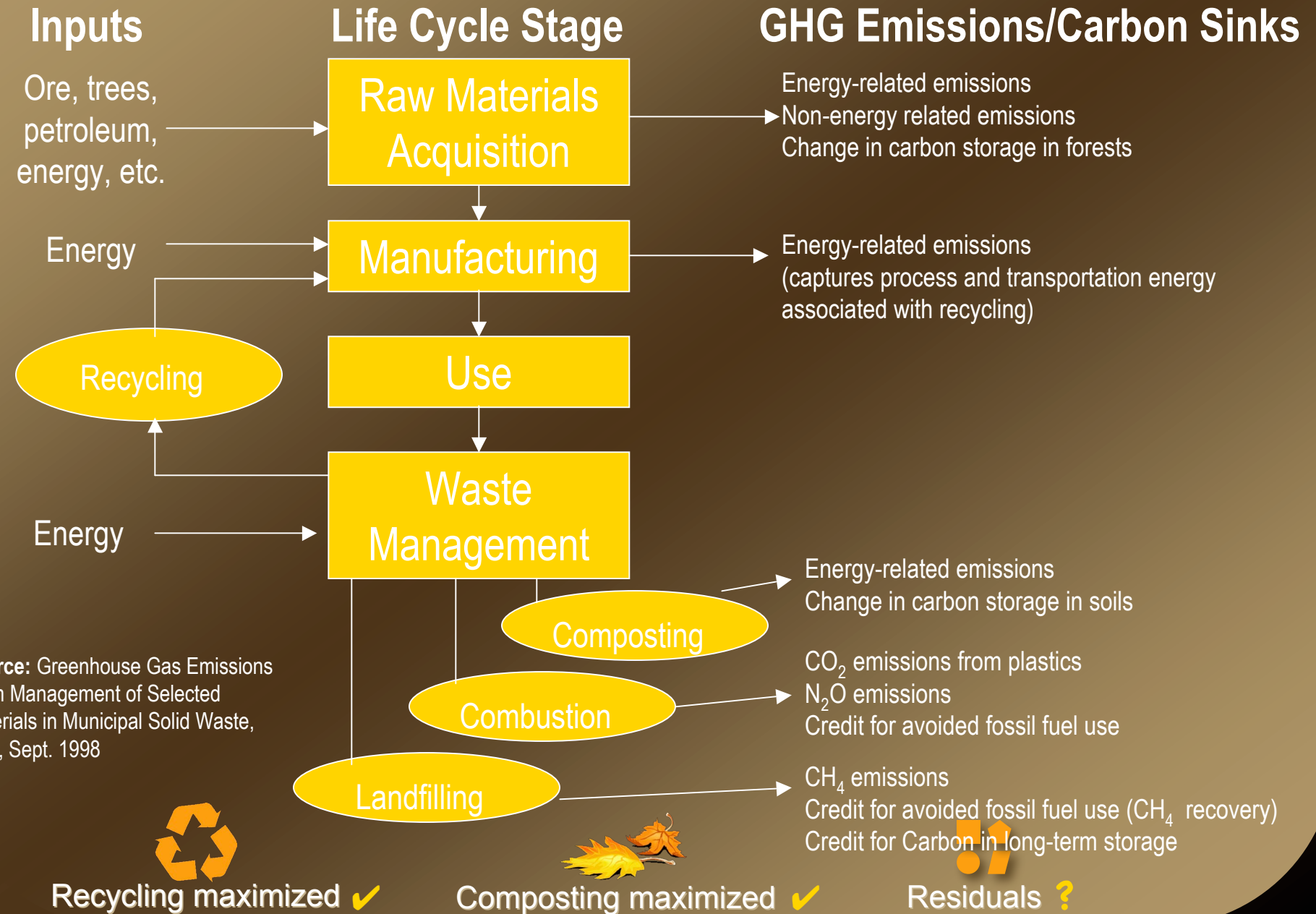


Composting maximized ✓



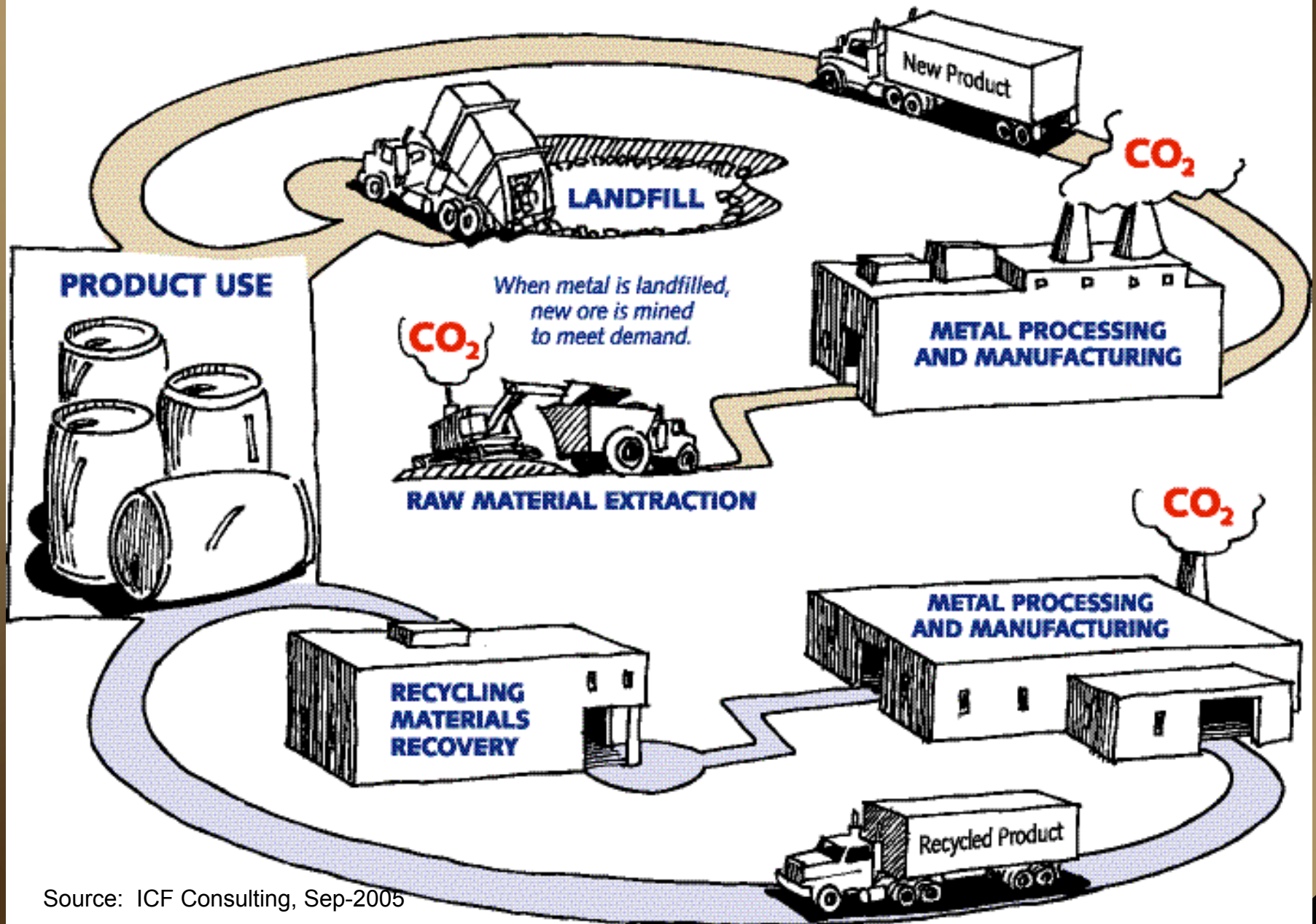
Residuals ?

# GHG Sources and Sinks Associated with Materials in the MSW Stream



# GHG Emissions for Metals

## Life Cycles for Landfilling vs. Recycling



## Net GHG Emissions from Source Reduction and MSW Management Options (tonnes eCO<sub>2</sub>/tonne)

Material	Source Reduction	Recycling/ Composting	Anaerobic Digestion	Thermal Treatment	Landfill
Newspaper	(3.81)	(2.81)	(0.49)	(0.05)	(1.22)
Fine Paper	(5.93)	(3.33)	(0.34)	(0.04)	1.18
Cardboard	(5.22)	(3.34)	(0.32)	(0.04)	0.29
Aluminum Cans	(4.55)	(6.49)	0.01	0.01	0.01
Steel	(1.95)	(1.15)	0.01	(0.99)	0.01
Glass	(0.40)	(0.10)	0.01	0.01	0.01
HDPE	(2.74)	(2.27)	0.01	2.85	0.01
PET	(3.50)	(3.63)	0.01	2.13	0.01
Computers	NA	(1.59)	0.01	0.41	0.01
Food Waste	NA	(0.24)	(0.10)	0.02	0.80
Yard Waste	NA	(0.24)	(0.15)	0.01	(0.33)

Source: ICF Consulting, Sep-2005



Recycling maximized ✓



Composting maximized ✓



Residuals ?

# Conclusion

- ◆ 3Rs hierarchy still valid
- ◆ Residuals treatment options can provide disposal alternatives
  - after 3Rs maximized



Recycling maximized ✓



Composting maximized ✓



Residuals ?