

## Improving the Efficiency of Plastics Recycling: Local Solutions to Global Challenges

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### ABSTRACT (maximum 300 words)

In recent years we have been bombarded with stories and images of marine life impacted by macroplastics and microplastics, sea birds starving as their digestive tracts fill with plastic waste, and beaches covered in plastic debris. In Canada alone we use 57 million single-use plastic straws every day and up to 15 billion single-use plastic bags each year. Eight million metric tonnes of plastic enter the earth's oceans annually and this number will double by 2030. These facts seem incongruent with the culture of recycling that has been developed and supported in the past two decades and lead us to question where the system is breaking down. In Prince Edward Island, recycling has been mandatory for two decades, and yet we have discovered that much of the collected recyclable material ends up in landfills or being incinerated, with the small percentage actually recycled being transported out of the province for processing, thus compounding the negative environmental impacts. As regulations banning single use plastics are introduced, alternatives such as paper and reusable cloth bags present their own environmental challenges.

This presentation will highlight our planned dual approach to decreasing the environmental impacts of plastic use by increasing the scope and efficiency of collection and sorting of plastics, and by developing local recycling capacity and local markets for recycled materials.

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