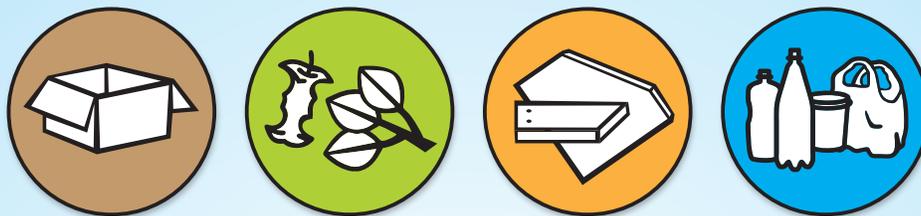


City of Whitehorse Solid Waste Action Plan Summary Document

August 2013



With a goal of Zero Waste by 2040, the SWAP sets an initial target of 50% reduction in the amount we landfill by 2015. This is an ambitious target, but here's how Whitehorse is going to do it:

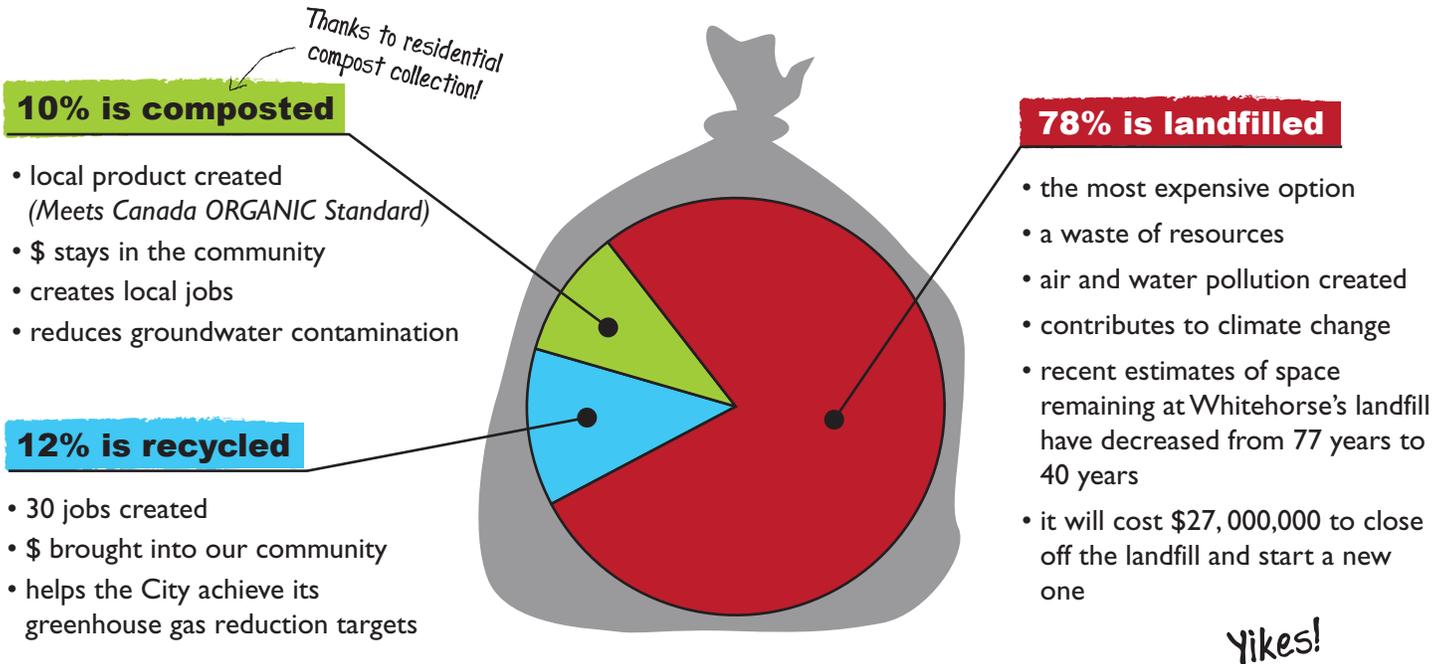
- Get the big stuff out of the landfill first
- Grow the partnerships to grow the services
- Inform, educate and motivate for real change



Halving waste is
having an impact.

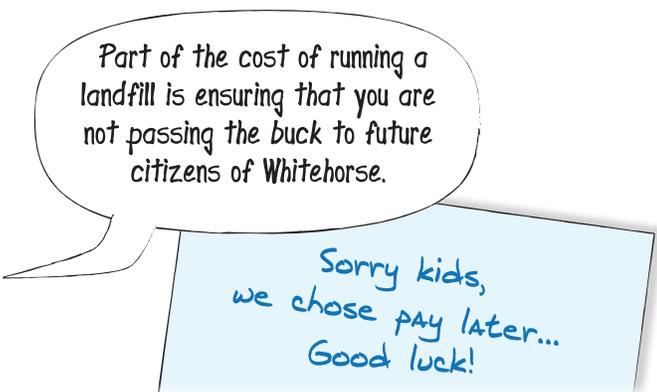
Our landfill is filling up:

The total waste generated (including recycling, organics and landfilled waste) in Whitehorse has **increased 88% since 2000**. This is partly due to population increases (18%), but even factoring that in, **Whitehorse citizens are producing 37% more waste per person than they did in 2000**. As a community, the more waste we produce, the more pressure (*read: cost*) on the overall waste management system.



New Waste Management Costs: Full Cost Financing

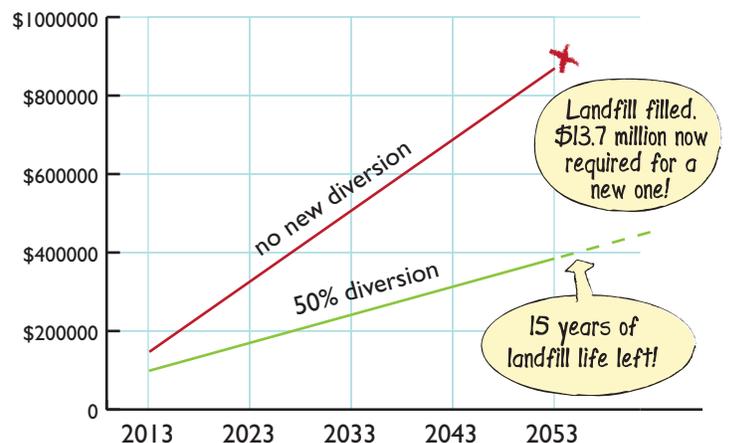
The City collects 100% of the costs of managing waste through user fees (e.g. tipping fees and utility bills). Because there are high fixed costs when managing waste via landfilling, composting, and recycling (i.e. heavy equipment), costs do not necessarily go down when we divert more. In fact, when we reduce the amount we send to our landfill, our per tonne costs to operate the landfill increase, at least in the short term. However, increased diversion helps delay the high cost of expanding the landfill, and brings money (via commodity sales) and diversion jobs into the community.



Closing the current landfill when it is full will cost \$13,500,000. We need to start saving today in order to be able to meet that cost. This is called the Landfill Closure Liability (LCL). The longer we can extend the life of the current landfill, the more time we have to save and the less it costs us each year. Plus we delay the need to come up with \$13,700,000 to open a new landfill.

Landfill Closure Liability (LCL) over time:

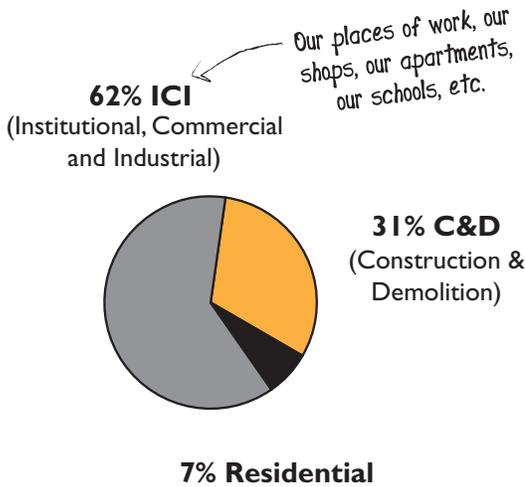
(The annual \$ we need to save each year in preparation for landfill closure and post-closure expenses.)



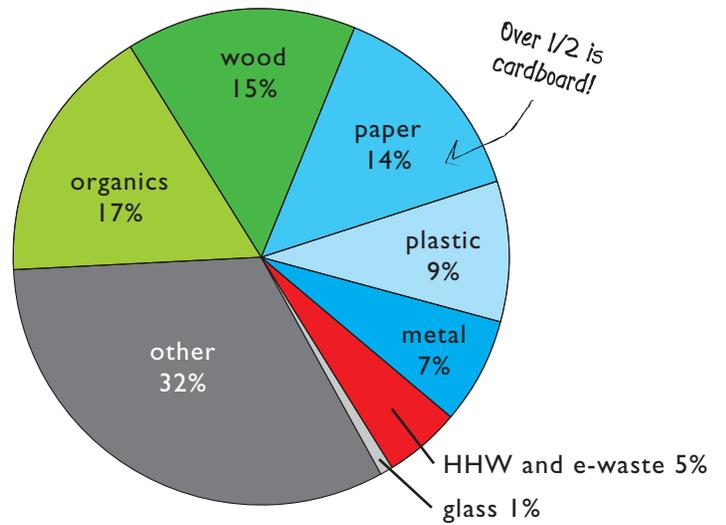
Getting to 50% less:

67% of what Whitehorse sends to the landfill can be recycled and composted **ALREADY!**

Here is where the waste in the landfill comes from:



Our businesses and builders say they are keen to reduce but they need help, financial incentives, and clear rules.



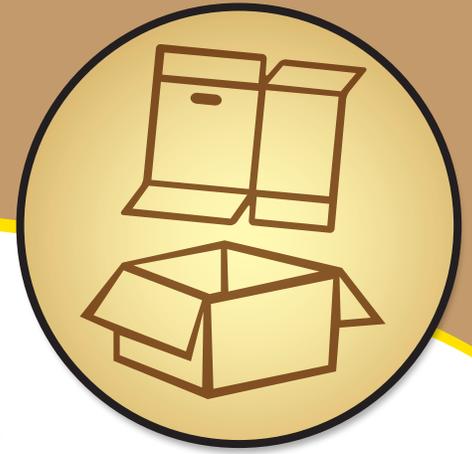
After extensive consultations, it was agreed that the City should aggressively divert cardboard, organics and wood waste and take a moderate approach for plastics and other types of recyclable materials.

17% 15% 7% 22%

Solid Waste Action Plan costs:

	2014 Waste Management Costs no SWAP	2014 Waste Management Costs with SWAP
Annual O&M Budget	\$1,843,000	\$2,005,000
Capital Project	n/a	\$250,000/yr for 2 years
<i>What does this do to our rates?</i>		
Commercial waste/tonne	\$76	\$86
Organics/tonne	\$26	\$26
Residential Utility/mth	\$3	\$3
What do we get?	<ul style="list-style-type: none"> • no new services • no new diversion • more ground and water pollution 	<ul style="list-style-type: none"> • new collection services • education, coordination and technical assistance • Less waste in the landfill (target 50% diversion by 2015)
Landfill Closure Liability (40 year average)	\$373,733/yr	\$184,335/yr

Cardboard



Why is this a priority in the SWAP?

- bulky in a landfill
- easy to recycle
- collection services already available

Who does this affect?

- | | |
|--------------------|------------------|
| Businesses ★★★★★ | Demolition ★ |
| Institutions ★★★★★ | Residents ★ |
| Construction ★★ | Multi-housing ★★ |

Timeline

- Aug. 2013 → develop working group
- Sept. 2013 → education & technical assistance begins
- May 1st, 2014 → Waste Management Bylaw amended
This makes cardboard a “controlled waste”; no fees
- Aug. 1, 2014 → fees apply, education continues

Action in the Plan

The City, in partnership with haulers and processors, will offer technical assistance and education support to commercial collection customers.

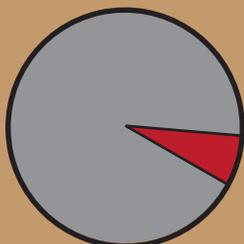
- Commercial sector will work with haulers and recycling processors to get cardboard collected separately
- City and its partners will help with sorting, space, bin sizes, and reduction tips
- Frequency changes will occur (e.g. less waste pickup in exchange for cardboard collection)

The Waste Management Bylaw (WMB) will be amended to make cardboard a controlled waste.

- Waste loads with cardboard (in practice over 10% in volume) will trigger an unsorted load fine of \$250/tonne.
- Fines will be phased in after a period of warnings.

The City will increase diversion credits for recycling processors

- Initial increase of \$50-\$75/tonne with a \$150,000 cap



Currently takes up **7%** of what goes into the landfill



Organics



Why is this a priority in the SWAP?

- creates air and water pollution in a landfill
- local high quality compost is in demand
- new investment in compost facility means capacity available

Who does this affect?

- | | | | |
|--------------|-------|---------------|-------|
| Businesses | ★★★★★ | Demolition | |
| Institutions | ★★★★★ | Residents | ★ |
| Construction | | Multi-housing | ★★★★★ |

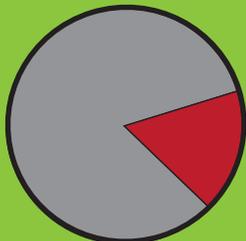
Timeline

- Oct. 2013 → City pilot for Multi-housing & Rural Residential begins
- Feb. 2014 → more multi-housing units added to pilot
- Aug. 2014 → some businesses added to pilot
- Apr. 1, 2015 → Waste Management Bylaw amended making organics a “controlled waste”; no fees; collection contract awarded to hauler
- Jan. 1, 2016 → fees apply, education continues

Action in the Plan

- The City will continue to invest in our Compost facility infrastructure
 - City to purchase equipment required to ensure the composting process at the current facility can handle, process and sell top quality compost to our community.
- The City will offer a pilot for commercial sector organics pickup
 - Starts with multi-housing units & businesses; slowly increasing participants over an 18 month period on a fee-for-service basis.
 - Existing City collection trucks; pilot collection to determine specifics regarding bins, frequency, space needed for full scale commercial collection (to be contracted out in 2015).
- The City will offer a pilot for rural residential organics pickup
 - Contained shed in an accessible hub created to offer waste, organics and, potentially in the future, recycling collection for 1-2 rural residential neighbourhoods on a fee for service basis using private haulers.
- The Waste Management Bylaw will be amended making organics a controlled waste.
 - Waste loads with organics (in practice over 10% in volume) will trigger an unsorted load fine of \$250/tonne.
 - Fines will be phased in after a period of warnings.

Thank you Boreal Compost Enterprises for “turning” organics into life giving soil for our community.



Currently takes up **17%** of what goes into the landfill



Wood waste



Why is this a priority in the SWAP?

- bulky and creates air pockets in a landfill
- there are reuse options for clean wood waste

Who does this affect?

- | | |
|--------------------------|------------------------|
| Businesses ★ | Demolition ★★ ★★ ★★ ★★ |
| Institutions ★ | Residents ★ |
| Construction ★★ ★★ ★★ ★★ | Multi-housing ★ |

Timeline

- Aug. 2013 → research C&D disposal options and develop working group
- Sept. 2013 → City bylaw and permit changes begin
- May 2014 → Waste Plan voluntary for building permits
- Sept. 2014 → Waste Plan mandatory for building permits
Clean wood waste is now a “controlled waste”; no fees
- Apr. 1, 2015 → fees apply for clean wood waste
refundable deposit on building permits

Action in the Plan

Wood waste solutions and strategy determined

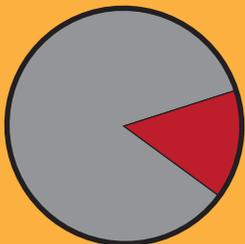
- Working groups research and determine end-use options for clean and treated wood waste and other C&D materials.

New permit requirements for construction and demolition

- Permits require a simple waste plan detailing diversion efforts
- Development permits to ensure adequate space for bins in new construction
- Deposit required and refunded upon proof of diversion of specific C&D materials

The Waste Management Bylaw (WMB) will be amended making clean wood waste a controlled waste.

- Waste loads with clean wood waste (in practice over 10% in volume) will trigger an unsorted load fine of \$250/tonne.
- Fines will be phased in after a period of warnings.



Currently takes up **15%** of what goes into the landfill



Mixed Recycling



Why is this a priority in the SWAP?

- citizens want increased collection and recycling services
- plastic packaging continues to increase
- hazardous waste is a significant problem in a landfill
- processors now have sorting capacity to handle mixed recycling

Who does this affect?

- | | | | |
|--------------|----|---------------|----|
| Businesses | ★★ | Demolition | ★★ |
| Institutions | ★★ | Residents | ★★ |
| Construction | ★★ | Multi-housing | ★★ |

Timeline

- Aug. 2013 → develop working group for Zero Waste education and to advocate for YG financial support
- Feb. 2014 → initial infrastructure grant application
- July 2014 → initial increase of \$50-\$75 for diversion credits
- Apr. 2015 → mixed recycling pilot

Action in the Plan

The City will work with partners to develop a Zero Waste education campaign

- Community-based social marketing to engage community into Rethinking its waste as a resource

The City will continue to advocate for the immediate expansion of YG's current stewardship legislation (e.g. BCR & DMR) and develop a comprehensive EPR legislation that supports a financially sustainable recycling system in the Yukon

- Goal to increase products that have collection and recycling/disposal paid for via a deposit similar to tires and beverage containers.

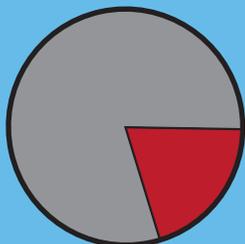
PRIORITY: Hazardous waste (e.g. e-waste, HHW, waste oil etc.)

The City will increase diversion credits for recycling processors

- Initial increase of \$50-\$75/tonne with a \$150,000 cap
- Unused funds from diversion credits allocated to a recycling infrastructure fund
- City to engage YG into matching or supporting diversion credit system

Mixed Recycling collection pilot

- Determine best model for collecting and charging for commercial recycling pickup



Currently takes up **22%** of what goes into the landfill





Thank you to those who joined the conversation on waste. Here are your ideas “reduced” into the basic approach of Solid Waste Action Plan (SWAP).



Partners in Waste Diversion

- More money for recycling processors
- Better compost facility
- Working groups
- Support new services with education and strong rules

Continuous Education & Phased in Approach

- Zero Waste education
- Let Us Help You: technical assistance and warning periods

City Leadership & Standards

- Pilot programs for commercial + rural residential organics collection
- Permits & bylaw changes: phased in control of cardboard, clean wood and organics
- City buildings: buying green and sorting better

Measurement, Enforcement & Feedback

- Monitoring and evaluation of programs
- Increased landfill enforcement staff
- New waste diversion education/enforcement staff



The getting to 50% less timeline:

