



UNIVERSITY OF
ALBERTA

Zero Waste Approach

CURC Webinar – June 11, 2015

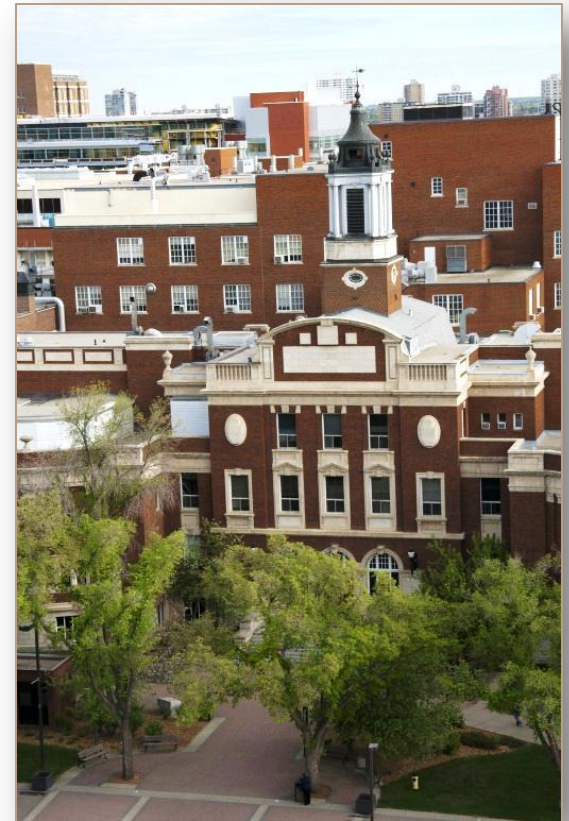
Overview

- UAlberta at a Glance
- Waste Diversion Background
- Goals and Drivers
- Organics Diversion
- Zero Waste Pilot Program
- Next Steps



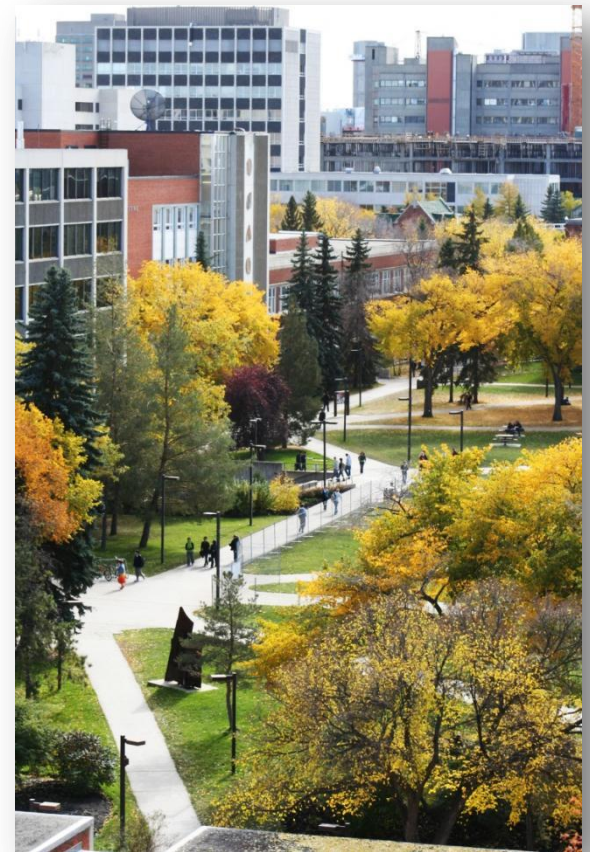
UAlberta at a Glance

- Established in 1908
- 5 campuses in Edmonton and Camrose
- Teaching and research institution
- 18 faculties
- Approx. 400 programs
- > 38,000 students
- ~12,000 staff & faculty



UAlberta at a Glance

- Building types
 - Office & Classroom
 - Residences
 - Science & Lab
 - Misc. (e.g. Phys Ed & Rec)
- Four major campus dining facilities (Lister Centre, SUB, CAB, HUB)
- 23 Aramark, 25 independent and 9 Students' Union food services



Waste Diversion Background



Goals and Drivers

Expand waste reduction initiatives across all campuses and increase the amount of waste diverted from the University of Alberta's North Campus to 50% by 2015.

Sustainability Plan 2012-2016

"Sustainability is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity."

— Academic Advisory Committee Working Definition, Office of Sustainability, 2010

Goals and Drivers

- “Waste Diversion Working Group”
 - Sustainability
 - Buildings & Grounds
 - Ancillary Services (dining & residences)
 - Purchasing
 - Planning
 - Department of Civil & Environmental Engineering
 - Edmonton Waste Management Centre of Excellence

Sustainability Plan 2012-2016

“Sustainability is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity.”

— Academic Advisory Committee Working Definition, Office of Sustainability, 2010

Date: January 30, 2012

Goals and Drivers

- Contribute 1,500 wet tonnes of source separated organic feedstock to the City of Edmonton high solids anaerobic digestion facility (est. completion 2017)
- New waste collection contract in 2016
- Sustainability Plan 2016-2020



Organics Diversion

Pre-consumer

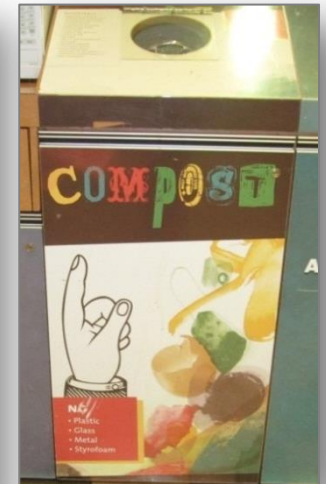
- Started in 2007 with two major dining facilities – Lister Centre and SUB
- Expanded to almost all food services and kitchens



Organics Diversion

Post-consumer:

- Lister Centre & SUB dining areas
- Residences
- Office pilot program
- Washroom paper towel collection
- Landscaping waste



Zero Waste Pilot Program

- 3 building pilot
 - HUB
 - SUB
 - Lister Centre
- 4 part planning & evaluation process



Zero Waste Pilot Program

Building Characterization



Conceptual Design



Implementation



Evaluation

Signage - Before



After



Stations (Before)



Stations (After)



Lister Centre - Before



Lister Centre - After



SUB - Before



SUB - After



HUB Mall - Before



HUB Mall - After



Evaluation Methods

- Investigate:
 - Material generation
 - Material composition
 - Users' behaviour
 - User opinions on signage & stations
- Methods:
 - Hauler data
 - Spot/Mini audits
 - Full audit
 - Bin monitoring
 - User survey



Results – Hauler Data

	Organics	Landfill
HUB	2,340 kg	↓ 36%
SUB	↑ 53%	↓ 10%
Lister Centre	↑ 1%	↓ 17%

Results – Monitoring

- Overall more waste diversion
- Low Organics capture, but high purity
- High Recyclables capture, but medium purity
- Napkins and dirty fibre containers in Mixed Paper stream



Results - Survey



Need more space between images

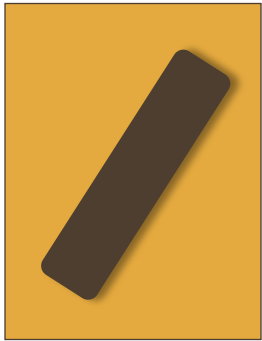


Consider adding key terms or clearer instructions



Clarify key problem items (e.g. napkins)





Adjust opening of Mixed Paper to reduce contamination

Evaluate if "Mixed Paper" & "Recyclables" are appropriate titles



Increase contrast between images and stations

Next Steps

- **Expand zero waste program to:**
 - Public space in HUB Mall
 - Existing pre-consumer organics collection locations (update)
 - Two other large food services (Faculty Club and Dewey's)
 - One new building (Innovation Centre for Engineering)
- **Work with food vendors on procurement of compostable food service ware**
 - Eliminate Styrofoam (polystyrene)
- **Develop more comprehensive communication plan**

Thank you!

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