



UBC Zero Waste Action Plan – 2016 Status Report and Update

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Author: Bud S. Fraser, PEng, Sustainability & Engineering

Scope

This report focuses primarily on operational waste. Refer to the construction waste report for more information on that sector.

Plan Targets & Milestones

1. Implement multi-stream waste sorting and collection infrastructure and communications across campus by end of 2015, targeting food scraps collection at all significant generation points by mid-2015.
2. Increase diversion rates toward meeting the Metro Vancouver regional diversion targets:
 - a. 70% diversion by 2016
 - b. 80% diversion by 2020
3. Decrease operational waste disposal to landfill/incineration steadily, despite campus growth, toward the long-term aspiration of a zero-waste campus.

Status

1. Implementation of infrastructure
 - a. Academic buildings: overall, rollout of indoor 4-stream recycling stations is complete. Approximately 650 small and large recycling stations have been installed in buildings since 2013. Food scraps collection is now a standard part of the servicing in the vast majority of locations.
 - b. Student housing: common recycling areas in most residences have been updated. Some additional work is needed in some residence areas including Acadia Park.
 - c. Athletics: some rollout of recycling bins remains to be done in some facilities due to budget constraints.
 - d. Outdoor stations: replacement and consolidation of outdoor garbage receptacles with recycling stations is about 30% complete and is continuing via Building Operations.
2. Diversion rates
 - a. Overall campus diversion rate was 67%, up from 63% the previous period. This overall rate includes construction & demolition waste.
 - b. The operational waste diversion rate was 43%, similar to rates over the past four years; though up 1.5% from the previous year, this change is within the error of the diversion rate data.
 - c. The construction & demolition diversion rate was 83%, down from 94% the previous year, however diversion rates in this sector normally vary significantly from year to year due to the small number of very large projects.
3. Waste disposal reduction
 - a. Operational waste disposal decreased approximately 11% from the previous fiscal year, despite campus growth. When factoring in campus growth (based on student FTEs), the operational waste decreased from 80 to 69 kg/FTE/year, or a 14% decrease.

Discussion

The data for last fiscal year suggest that the Zero Waste Action Plan implementation is resulting in decreased garbage disposal. However the operational waste diversion rate did not change significantly. This may be in part due to variability in the data. Of the data sources, garbage disposal data has a higher confidence, as it is primarily measured at one facility (Vancouver Transfer Station), and is weighed at a scale; recycling data comes from multiple sources. Other possible explanations:

- Based on available data, overall waste generation appears to have decreased, which would contribute to waste disposal reduction but not to higher diversion. We did see a decrease in mixed paper and office paper recycling, despite the new recycling stations, suggesting that paper use may be decreasing.
- Potential errors (under-reporting) in the estimation of quantity of food scraps processed at UBC's composting facility. These are estimated based on cart counts and typical cart weights, and not actual weight data.

Key opportunities to drive diversion rates higher and further reduce waste disposal are described below. It is clear however that the University must obtain better data on where waste is coming from, in order to achieve these objectives. Currently, most waste and recycling data is collected only on a campus-wide basis.

Opportunities to Increase Diversion

1. Further increase organics recovery. Data and modelling suggests that the current recovery rate for organics is only approx. 33%.
2. Confirm that recyclable waste separated in the recycling stations in buildings is kept correctly separated all the way to the recycling trucks.
3. Continue to explore higher waste diversion including organics in Student Housing (see Monitoring under Priority Actions below). The limited data available from pilot projects suggests that diversion rates in student housing are lagging (44% in Gage, 17% in Marine Drive) due to some of the barriers to recycling for residents.
4. Better separation of wood waste, especially Grade 3 which has a low recycling rate (nearly 400 tonnes/year of wood waste of all grades were collected).
5. Divert animal bedding waste (approx. 100 tonnes/year) which is currently being landfilled.

Priority Actions for 2016-17

Waste Reduction & Reuse

1. Complete development of the food service ware procurement guideline and engage food outlets in aligning with the guideline and the overall waste prevention strategy.
2. Develop a re-use business model, starting with a SEEDS study.

Infrastructure

3. Continue to develop a transition plan for the UBC composting facility including improved tracking of food scraps quantities.
4. Continue to work with stakeholders such as Athletics to ensure recycling stations are accessible in all locations.
5. Replace additional outdoor garbage receptacles with recycling stations. The currently anticipated phase would replace approx. 40 garbage cans in the public realm with approx. 10 recycling stations. Student Housing facilities are also planning to replace most outdoor garbage cans within their residence areas.
6. Engage with Properties Trust and other construction project owners to ensure that recycling infrastructure in new buildings is consistent with UBC guidelines.

Communications & Engagement

7. Continue to explore opportunities for improving diversion in the Nest.
8. Continue to develop and deliver the Sort it Out communications and engagement program including the interface with the Sustainability in Residences program.

Performance Monitoring

9. Conduct another composting facility audit in fall 2016 to better understand current throughput and recovery rate.
10. Conduct additional audits of student housing waste diversion.
11. Continue to develop better waste data collection systems, particularly so that garbage and diversion performance can be assessed on a building-specific basis.
12. Audit and explore opportunities to improve wood waste separation and recycling.
13. Explore methods to estimate how much furniture and equipment may be entering the disposal stream.