

As part of the Banff Centre's ongoing effort to Benchmark environmental progress, waste audits were completed during the last week of July 2005. These audits are part of a multi-year program to sample campus waste streams throughout the year (March, July and October). The following departments have been selected for sampling in order to capture the diversity of campus waste generation patterns.

- Food and Beverage
- Staff Housing
- Physical Facilities: Trade Waste
- Theatre: Trade Waste
- Housekeeping:

1.0 Food and Beverage Waste Audit Results: July 26 2005

Total weight of waste 478 Kilograms

Total weight of materials separated for recycling 350 kg (partially based on volumetric estimation for loose cardboard by California Integrated Waste Management Board). The waste stream composition identified on July 26 is provided in chart one. Due to communication failures, recyclable material was not set aside during the period of this audit and recycling data is therefore not available for this audit. However cardboard quantities of approximately 350kg's were noted (using the volume to weight ratio established for previous waste audits).

F & B Waste Composition July 26 2005

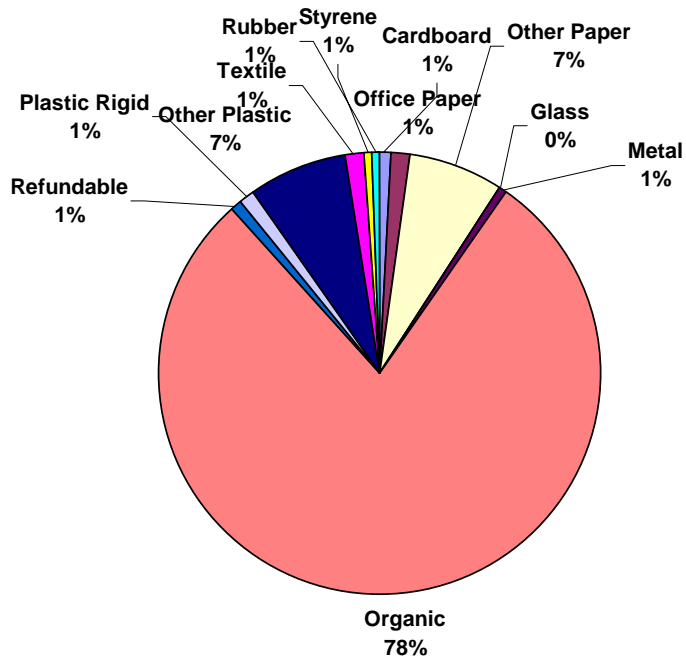


Chart 1. Food and Beverage Waste Composition July 26, 2005

F & B Waste Composition Patterns June 2003- July 2005

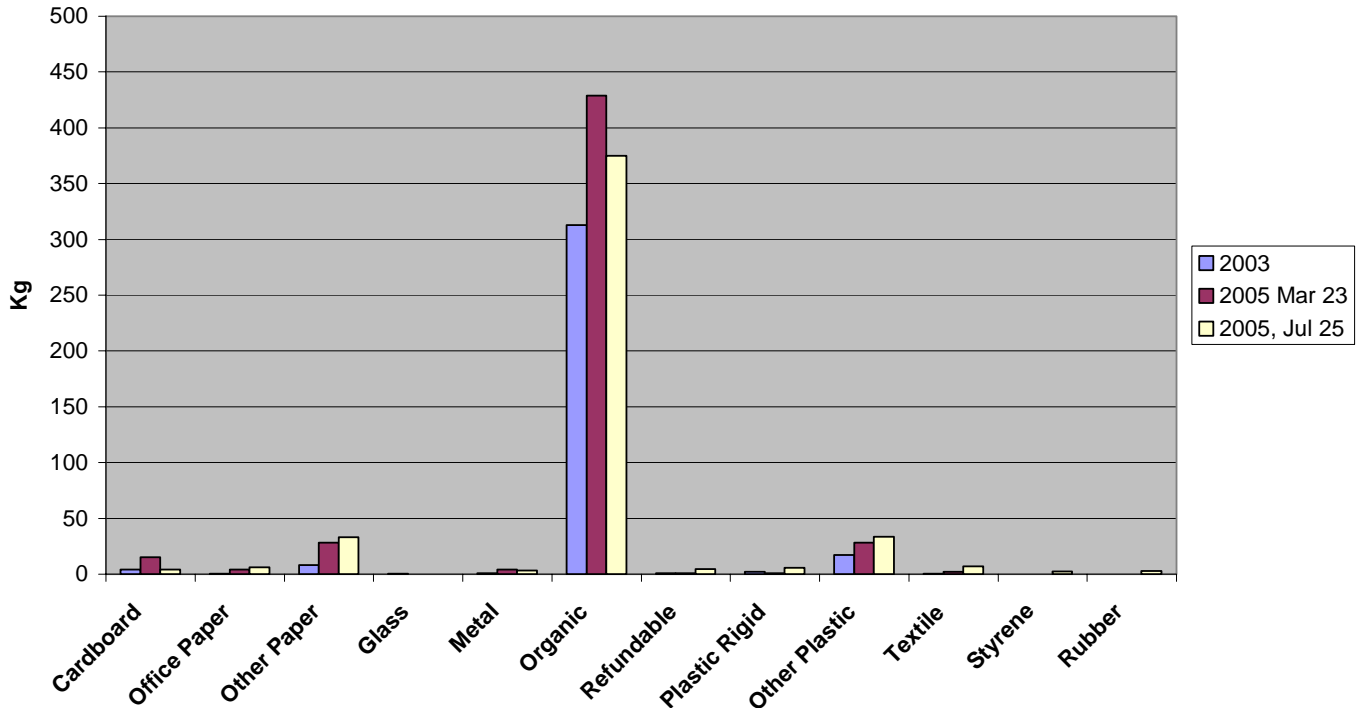


Chart 2. 2003 and 2005 Food and Beverage Waste Composition.

In 2003 the waste audit revealed 0.22kg of waste per cover, in 2005 this value was 0.44 kg/ cover. A 21 % waste diversion rate was achieved in 2003 through recycling, during the 2005 audit the recycling rate had increased to 43 %.

2.0 Staff Housing Results:

Due to scheduling difficulties it was only possible to conduct a single audit of the Donald Becker staff housing complex on July 25. This date reflected a midmonth sampling period and did not contain evidence of move-out waste. This audit captured approximately 12 hours of waste generation, due to the servicing of the bin by the Town of Banff collection vehicle the day prior. The regular pick-up cycle for these bins ranges from 2-3 days but varies depending on Town of Banff staffing levels. During the July 26th audit, there was 24.8 kg of waste generated over the preceding 12 hour period with 60 residents during this period. During the April 1st audit there was 101 kg of waste generated by 62 residents during the preceding 24 hour period. Based on these two events there is an average of 1.25 kg of waste

produced per resident per day. The reduction in refundable beverage containers does appear to be a positive trend reflected in this data, however given that this data reflects four snapshots of waste generation levels, caution should be used in drawing inferences about changes in overall waste composition based on such limited sampling events.

Chart three illustrates the waste composition during the four waste audits completed for this facility since August 2001.

Becker Waste Composition Aug 2001 to July 2005

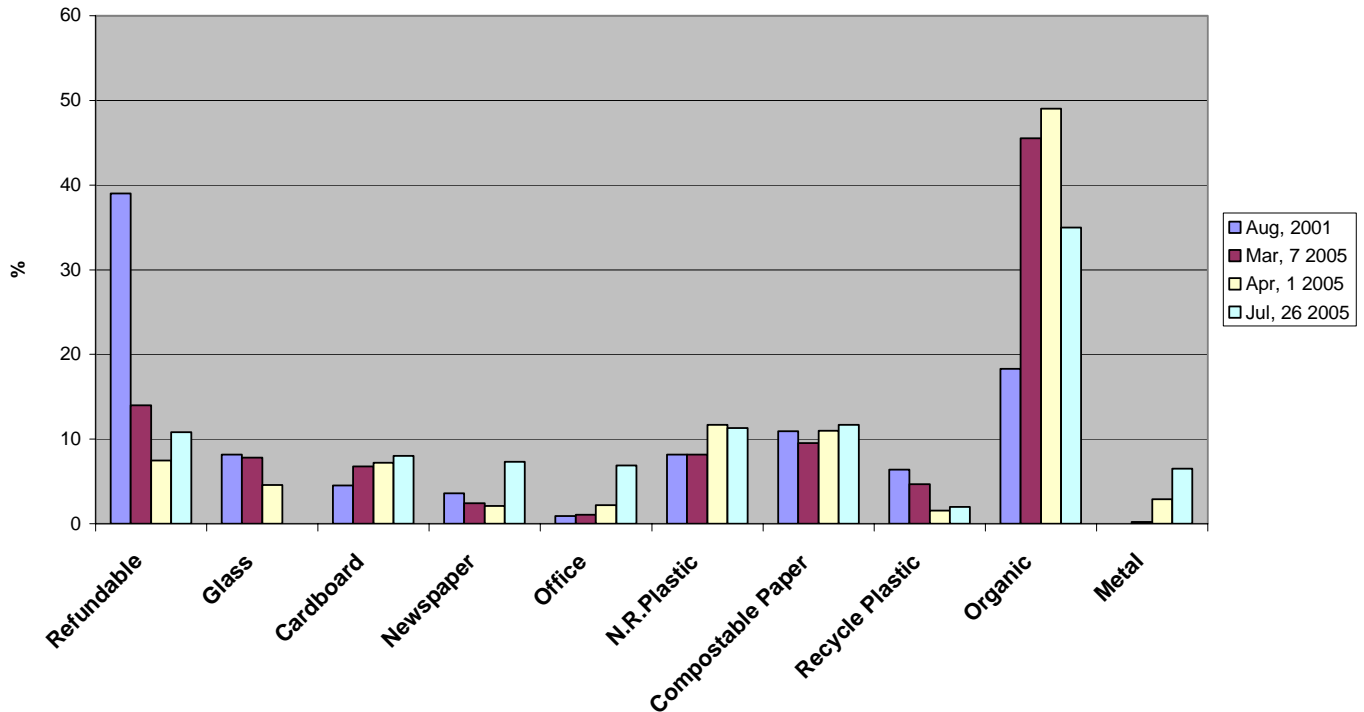


Chart 3. Staff Housing Waste Stream Composition 2001-2005

Average Staff Housing Waste Composition

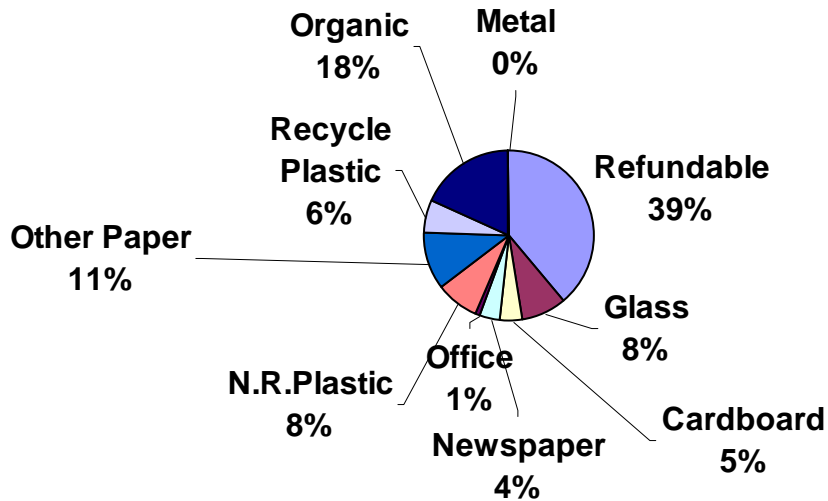


Chart 5. Staff Housing Average Waste Composition

3.0 Campus wide Waste Assessment Results:

Due to unavailability of Town of Banff personnel due to annual leave scheduling, it was not possible to arrange a campus wide waste assessment as part of the July audit process. It is recommended that due to the additional effort required on the part of the Town of Banff to complete this portion that it be compiled on an annual basis as part of the March waste audit protocol.

4.0 Theatre Trade Waste Results

The Theatre trade waste audit was a unique exercise in that this audit captured the disposal of durable items disposed of due to a number of circumstances. The nature
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of this waste stream is that materials are generated through an ongoing series of one-time events. The materials in this audit reflect the events happening in the past month, which included set construction, and general purging of end of life tools and equipment. It is not practical to compare waste composition over time from this waste stream, however by knowing what volumes and types of material do move through this department additional recycling and diversion opportunities can be investigated. There were no items of significant concern noted in the July 27th audit, however it be noted that empty paint cans were present in the waste stream, these should be sent to Safety and Security as part of their Hazardous Waste Program

Chart 6 illustrates the waste stream composition during the July 27th auditing event.

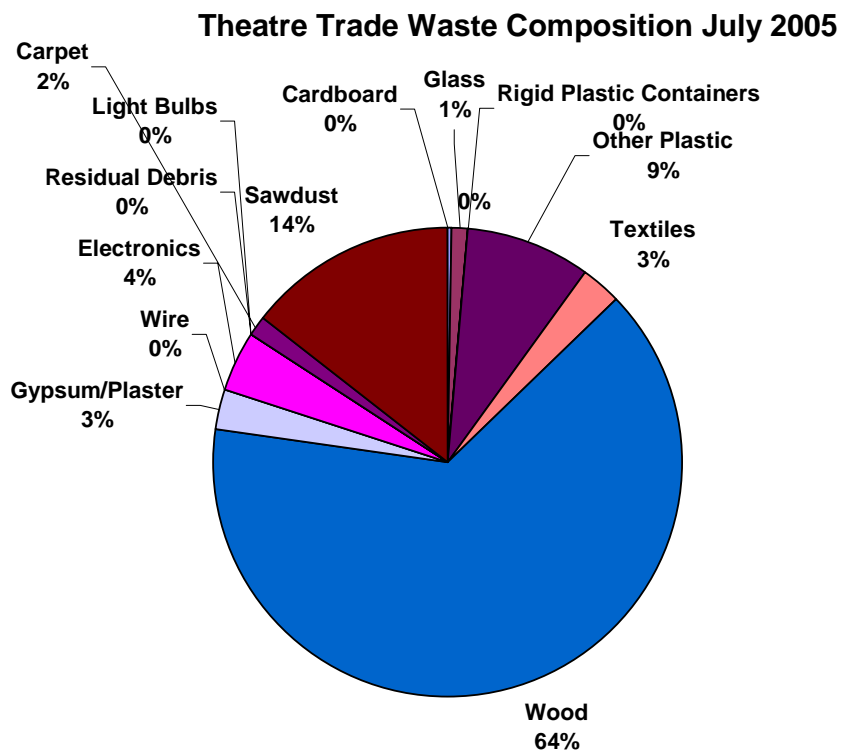


Chart 6. Components of Theatre Waste Stream

5.0 Housekeeping Waste Audit Results

Based on discussions with Custodial supervisory staff, it was decided to add the Housekeeping waste stream to the Banff Centre Waste Audit program effective July 2005. The initial audit was conducted on Bin #40 located behind Lloyd Hall on July 26. During the proceeding 24 hour period 93.3 Kg of waste was accumulated in this bin. Based on the location of the bin and nature of the contents (in either black or clear garbage bags) it was assumed that all material sampled was in fact placed in the bin by Banff Centre Housekeeping staff. As this was the first audit of this department there is no baseline as of yet to compare results to, however this audit did identify the presence of sorted bags of recyclable material placed in the general waste stream. Out of a total of 93 kg, nearly 10% or 9.5 kg consisted of recyclable material that had been sorted, and collected in clear plastic bags.

Chart 7 illustrates the waste stream composition identified during this audit.

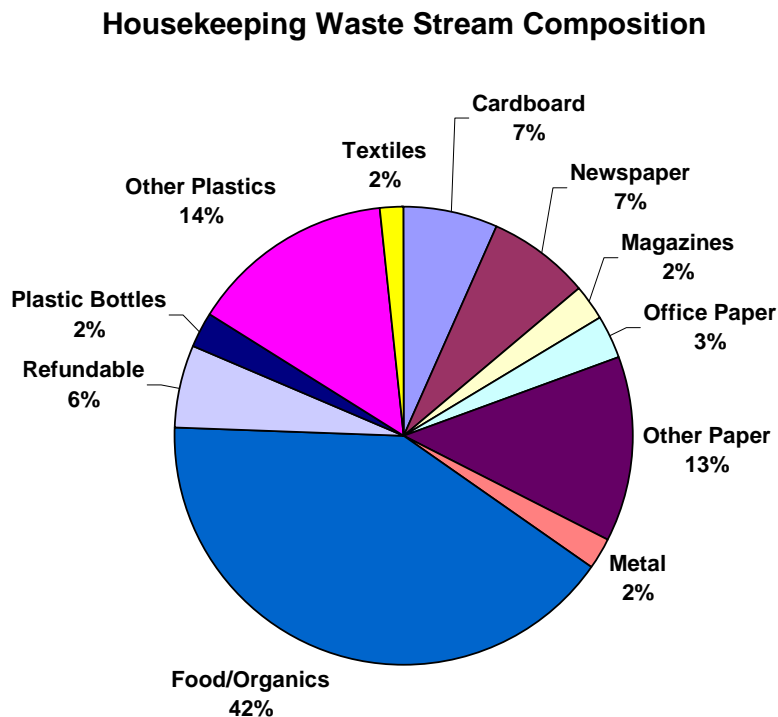


Chart. 7. Housekeeping Waste Stream Composition

6.0 Conclusions and Recommendations

While it is still premature to begin drawing trends from the data collected through these waste audit events, several points do stand out.

- Food waste is a significant portion of the Banff Centre waste stream and efforts to reduce waste and participate in composting efforts when available should be encouraged.
- Staff participation in food and beverage recycling program has been achieved and should now be maintained.
- Additional training and supervision is required to ensure housekeeping staff are aware of and supportive of recycling efforts.
- Wood waste comprises a significant portion of the trade waste generated by the theatre department. Opportunities for recycling of this material at the regional landfill should be supported when they become available.

The auditing events planned for October 2005, should occur as planned with particular attention paid to the points mentioned above.