

As part of the Banff Centre's efforts to Benchmark environmental progress a series of waste audits have been completed during the Months of March and April 2005. These events provide data on waste generation patterns from the following departmental areas on campus.

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

1.0 Food and Beverage Waste Audit Results: March 23 2005

Total weight of waste 518 Kilograms

Total weight of materials separated for recycling 386 kg (partially based on volumetric estimation for loose cardboard by California Integrated Waste Management Board). The waste stream composition identified on March 23 is provided in chart one. Chart two illustrates the waste and recycling material streams for March 23.

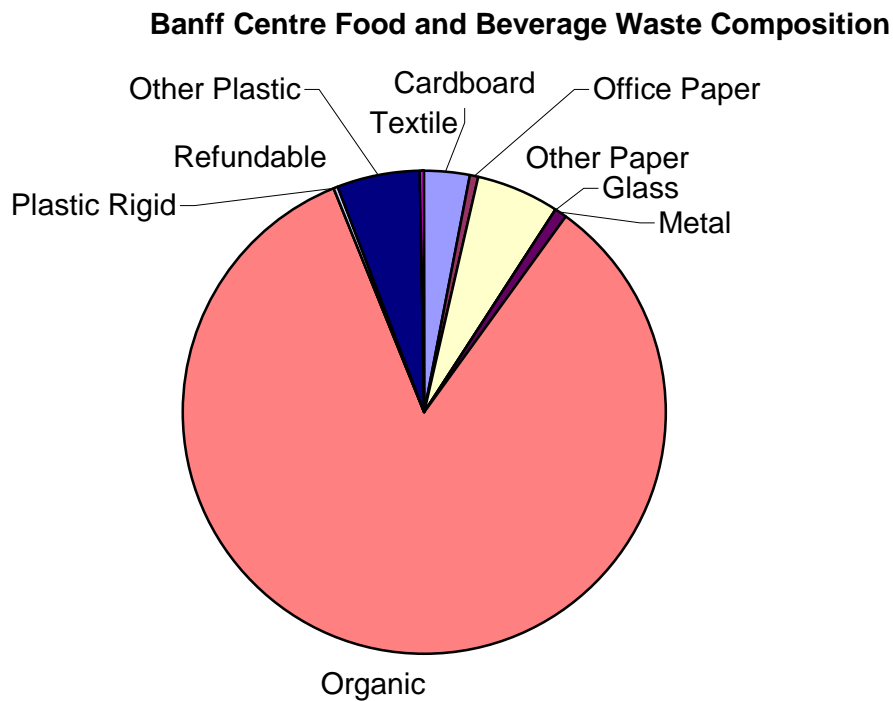


Chart 1. Food and Beverage Waste Composition March 23, 2005

Food and Beverage Waste vs Recycling

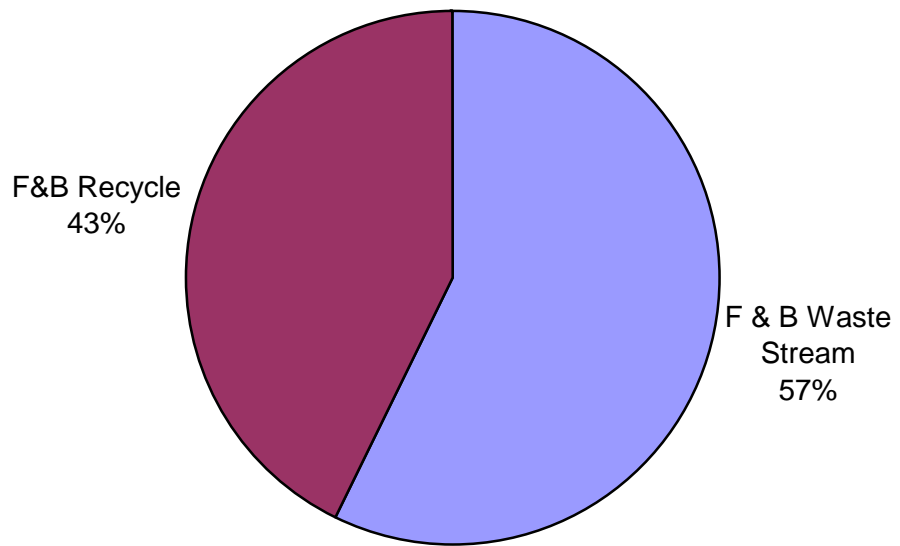


Chart 2. Waste Stream vs. Recycle Stream March 23, 2005

Food and Beverage comparison of results to June 2003 audit.

2003 vs 2005 F&B Waste Composition

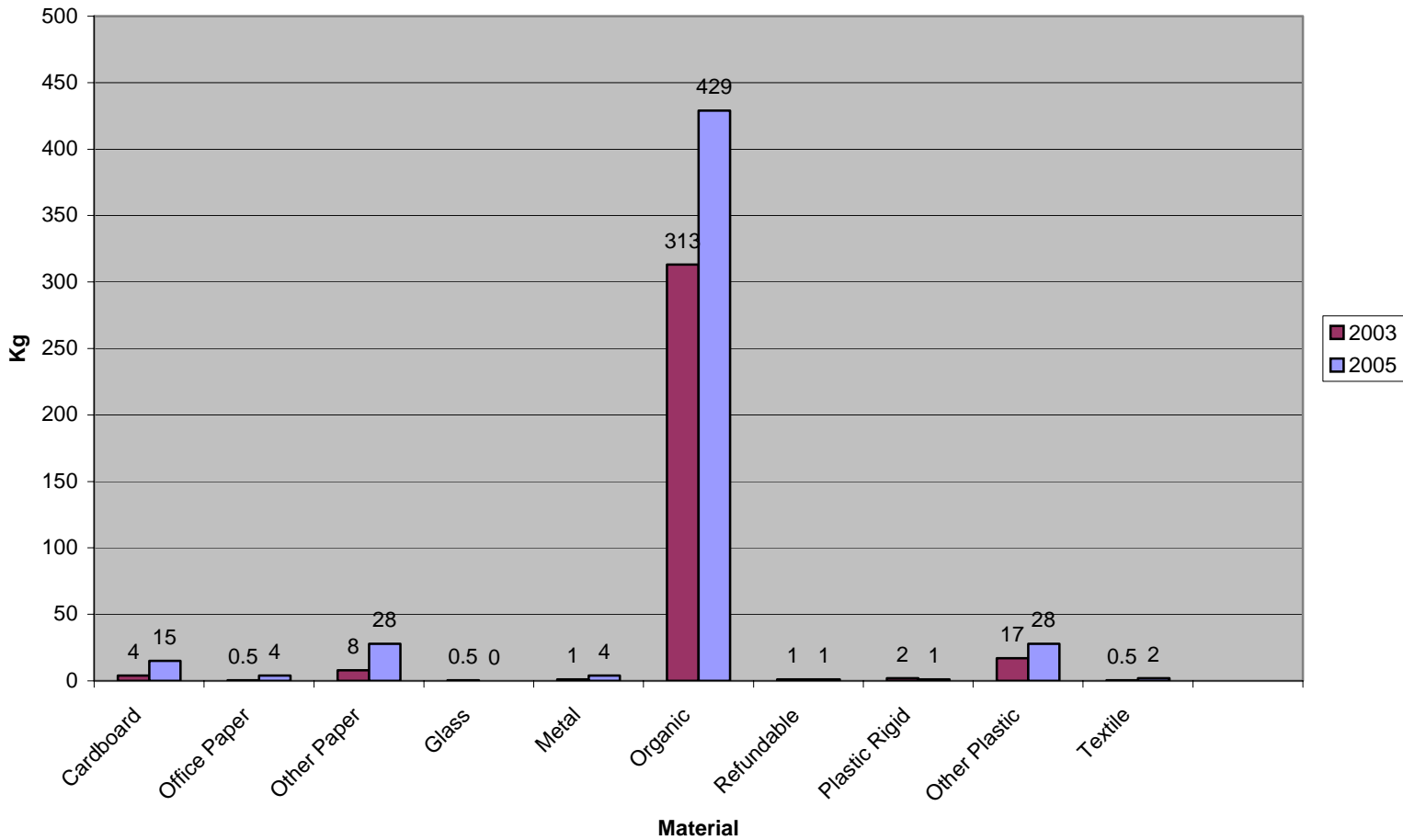


Chart 3. 2003 and 2005 Food and Beverage Waste Composition.

In 2003 the waste audit revealed .22kg of waste per cover, in 2005 this value was 0.11. 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:

Two audits were conducted at the Donald Becker staff housing complex on March 7th and April 1 2005. These dates were chosen to reflect waste levels during mid month and the busier month end when staff turnover is higher. The end of month audit did have a greater volume of waste but did not contain material from move outs as expected. Capturing move-out waste is difficult as advance notice of this material entering the waste stream is often not possible. During the March 7th audit, there was 32 kg of waste generated over the preceding 24 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 1.1 Kg of waste produced per resident per day.

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

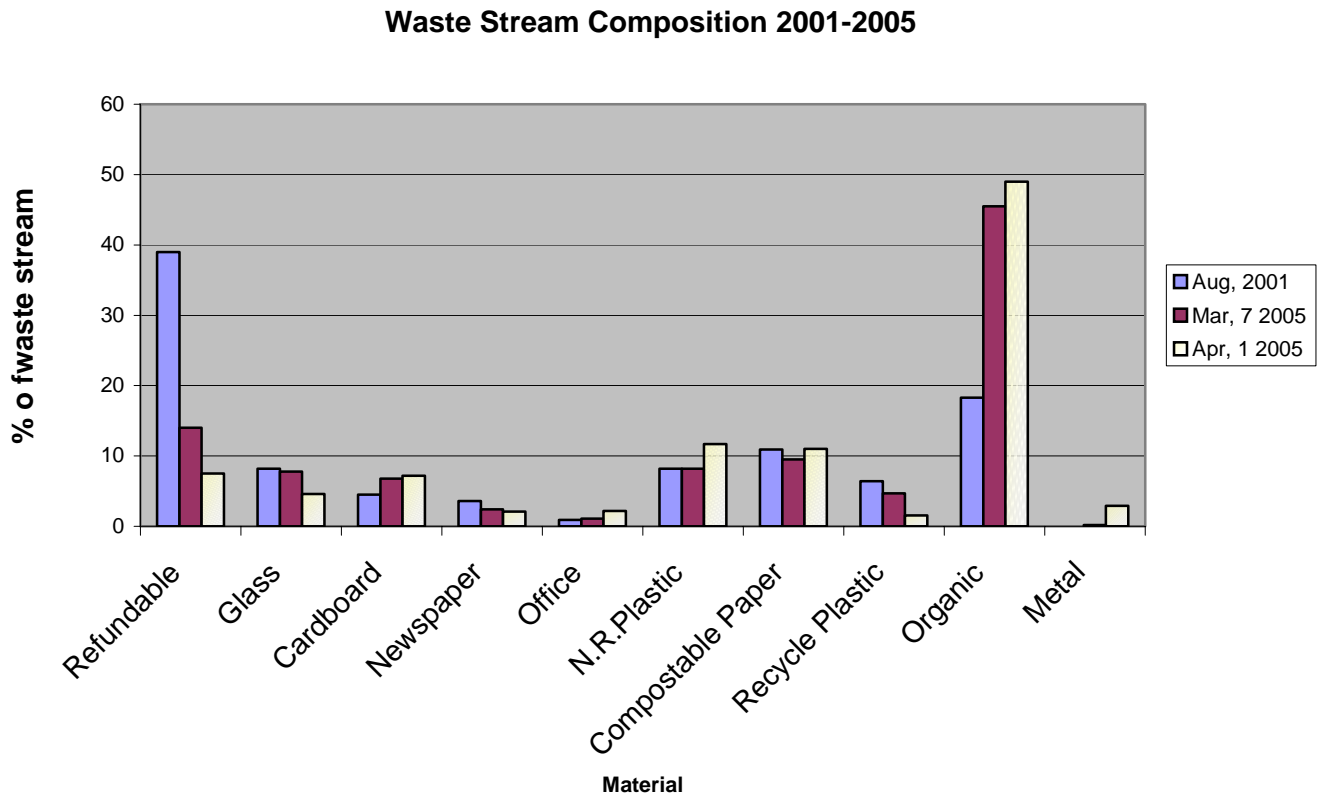


Chart 4. Staff Housing Waste Stream Composition 2001-2005

Average Staff Housing Waste Stream Composition

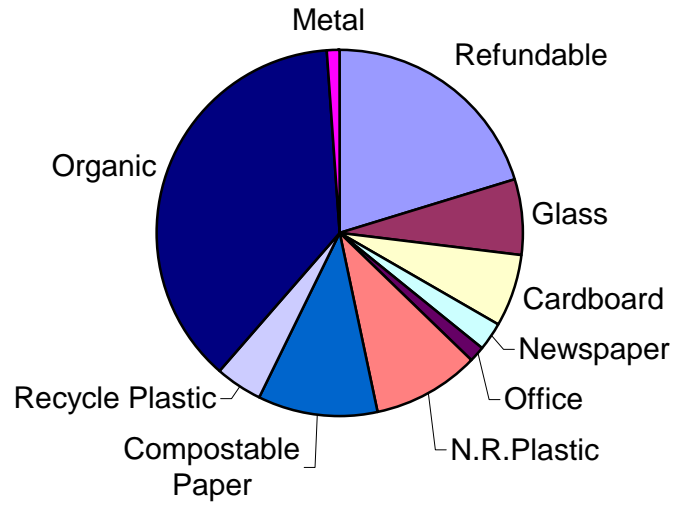


Chart 5. Staff Housing Average Waste Composition

3.0 Campus wide Waste Assessment Results:

On March 22, 2005 the town of Banff collected the contents of the 10 bear proof-residential style waste bins on campus and determined the weight to be 890 kg. Twenty four hours later these bins were again emptied and the weight of material generated during this period was identified. This collection exercise was designed to coincide with the food and beverage waste audit and provide a snap shot of campus wide municipal waste generation. The campus waste #'s from this 24 hour period are included in the bullets below. Trade waste was not included in this assessment but is discussed in other sections of this document.

- Campus waste excluding kitchen waste 395 kg
- Food and beverage waste 518 kg
- Food and beverage recycling 386 kg
- Total resource consumption represented in municipal solid waste stream 1300 kg

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 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 replacement of the backstage flyweight system, a purge of outdated promotional brochures, and a clean up in the lighting shop of outdated bulbs and equipment. It will not be 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. In addition to the routine waste material encountered, the presence of the following items indicate that additional vigilance is needed in ensuring the safety of waste collection staff and meeting regulatory compliance.

- **Fluorescent light ballasts**
- **Un-shielded syringe units (no bio-hazard issue, but still sharps)**
- **Partial spray paint can**

Chart 6 illustrates the waste stream composition during the April 8th auditing event. And chart 7. illustrates the quantity of materials in the waste and recycling streams. Recyclable materials included scrap metal, newspaper, magazines and glossy paper, and office paper.

Theatre Waste Stream Composition

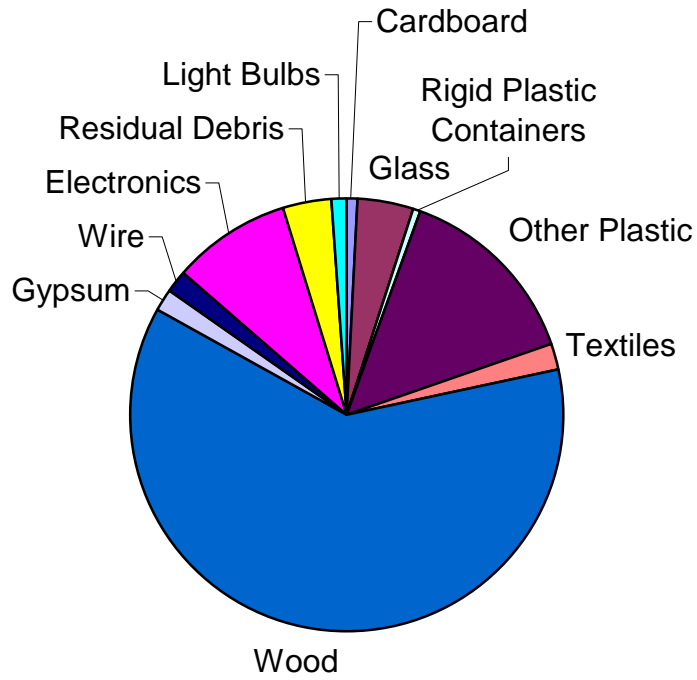


Chart 6. Components of Theatre Waste Stream

Theatre Waste and Recycling Streams

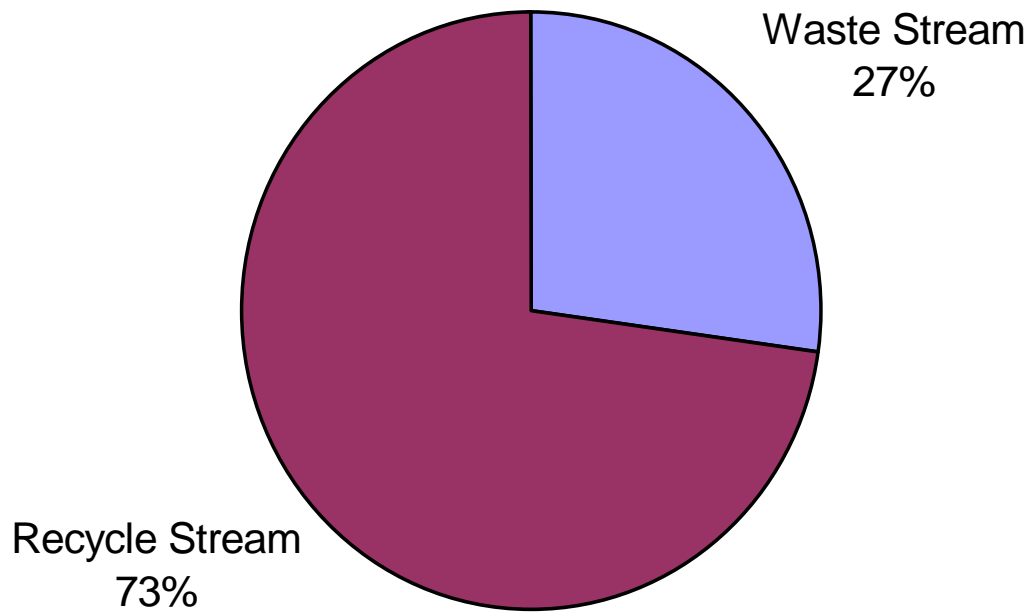


Chart 7. Waste vs. Recycle Streams from Theatre

5.0 Physical Facilities Trade Waste Results

Physical Facilities staff completed the Physical Facilities Audit, when their dump run was completed on March 7th. This load of material was quite homogenous in nature with five types of items present.

- Metal; 700 kg of material, listed as predominantly old bedframes
- Wood-Solid; 1260 Kg of wooden shipping pallets
- Wood –engineered; 1030 kg of furniture comprised of particle board and laminates.
- Mattresses; 10 single mattresses
- Refrigerator; 1 unit with Freon to be removed at Regional Landfill

Since the completion of this audit, a source for re-use of old shipping pallets has been identified in Canmore and this portion of the waste stream will be reduced in the future. Chart 8 illustrates the composition of the March 2005 Physical Facilities dump run.

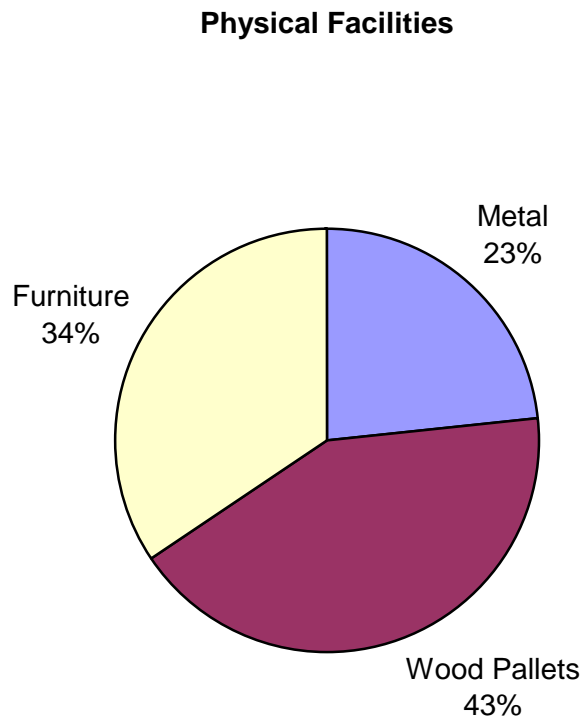


Chart 8. Physical Facilities Waste Composition