Waste Characterization Report

Multnomah Building **Date of Sort: October 27, 2009**

Prepared by: Michelle Metzler
Waste Prevention and Recycling Coordinator, Multnomah County

Waste Sort Team: Janna Allgood, Tim Lynch, Justin Tobin

Objective:

The objective of the waste sort is to determine the potential for additional capture of compostable and recyclable materials. By sorting materials in the garbage, opportunities to recover materials using existing recycling systems and through the creation of new systems for recycling, composting and waste prevention can be identified.

Current Performance:

Current recovery opportunities: Paper, metal, plastic, glass, plastic film, batteries, electronics, rigid plastics, CD's, furniture.

- 2008 Multnomah Building average paper and containers recycling rate: 44%
- 2008 Multnomah County average paper and containers recycling rate: 29%
- Multnomah County recycling goal by 2010: 65%

Methodology:

The sample is two full days worth of garbage (Friday 4/17, Monday 4/20). Although the sample included recyclable material, the sample only included material from the garbage collection container.

The sample was sorted into the following categories: mixed paper, aluminum cans, plastic bottles, glass bottles/jars, aceptics, plastic bags/film, compostable papers, compostable food items, non compostable serviceware, non compostable coffee cups, and other non-recyclable materials (garbage). Each of these material groups were weighed and cataloged. The following report details the material composition of the sample and makes recommendations based on the findings[1].

Figure 1: Waste Sample

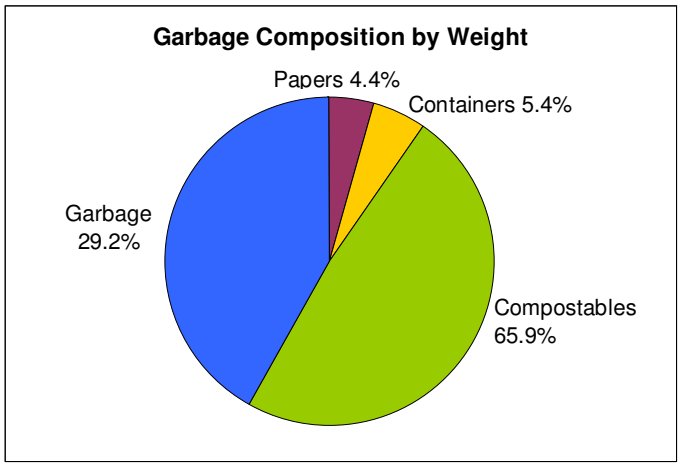
Weight data was collected utilizing an A & D FK150 series bench scale, independently calibrated by AAA Scale of Portland, Oregon, to collect weights to the nearest 1/100th of a pound.

[1] Note: Both the findings and recommendations are cited in terms of weight, not volume.

Findings:

The eleven categories of materials are grouped into one of the four following categories: Paper, Containers (aluminum cans, plastic bottles, glass, plastic bags), Compostables (compostable food and fibers), and Non-recyclables (food trays, cups, garbage). Figure 2 shows the percent by weight of each of these four general categories.
The following is a breakdown of weight percentage represented by each category.

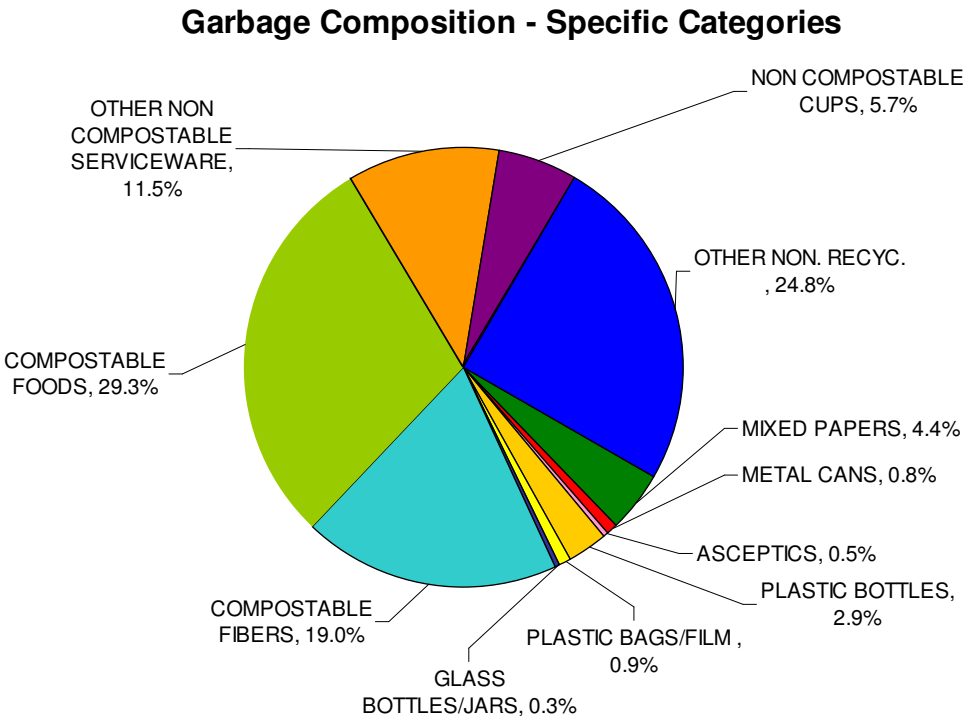
Figure 2: Percentage of Waste Stream by Weight



Recyclable Fibers	Lbs.	Percent of Waste Stream
➢ Mixed Paper	7.6 lbs	4.4%
Recyclable Containers		
➢ Aluminum Cans	1.4 lbs	0.8%
➢ Plastic Bottles	5 lbs	2.9%
➢ Glass Bottles	0.6 lbs	0.3%
➢ Asceptics	0.8 lbs	0.5%
➢ Plastic Bags/Films	1.5 lbs	0.9%
Compostables		
➢ Compostable Foods	50.7 lbs	29.3%
➢ Compostable Fibers	32.8 lbs	19.0%
Non-Recyclables		
➢ Non compostable cups	9.8 lbs	5.7%
➢ Other non compostable serviceware	19.9 lbs	11.5%
➢ Garbage	42.9 lbs	24.8%
Total Sample	173.0lbs	100%

The following chart (Figure 3) shows the distribution of the specific materials in the waste stream by weight.

Figure 3: Percentage of composition by specific material categories



Observations & Recommendations:

The findings from this waste evaluation suggest that there are several materials that might be targeted to help reduce the amount of waste generated by the Multnomah Building. Only 29.2% of the material found in the garbage is not recyclable or compostable. This represents a substantial opportunity to capture additional materials through increased employee education, expansion of current recycling programs and the implementation of a composting program.

Compostable food and fibers: 48.3% of the garbage was composed of compostable material.

Recommendation: Consider implementing a compost collection. If the Multnomah Building was able to capture 75% of the compostable materials disposed of in this building, this would result in a 20% increase in the building's recycling rate.

Cans, Plastic Bottles and Mixed Papers: These materials are easily recyclable in the mixed recycling collection but still compose 9.8% of the garbage. Because mixed recycling bins exist throughout the building, including in public areas, more staff education is necessary to increase the capture of these materials.

Recommendation: Ensure that on-site staff is aware of comingled recycling collection.

Appendix A: Glossary of Sort Categories

Aceptics: All juice boxes, milk cartons, soy milk containers and other recyclable waxed or metal lined paper containers.

Aluminum cans: Containers made of aluminum, including containers for beverages and other materials.

Compostable foods: Includes vegetables, fruit, meats, dairy, bread products, coffee grounds and all other food scraps.

Compostable fibers – Paper towels, coffee filters, napkins and all other food soiled papers.

Compostable serviceware: All utensils, cups, bowls, plates, straws and take away boxes that are accepted at the local commercial composting facility.

Ewaste – All types of waste containing electrically powered components. This includes computers, televisions, VCRs, stereos, copiers, fax machines, clocks, keyboards, phones, and other electronic products.

Glass bottles/jars – Containers made of glass exhibiting a neck or threaded top.

Mixed paper – Office paper, paper board/soft cardboard, folders, scrap paper, sticky notes, shredded paper, paper bags, newspaper and all other non-corrugated cardboard.

Non compostable serviceware – Included containers not made of metal or glass or plastic bottles. Examples include carry out food containers, water and soda cups. These materials are also known as "true waste" because there are currently no recycling options for these materials.

Other non-recyclable materials – All other non-container materials that can not be recycled including non compostable food waste, plastic utensils, bathroom paper towels, ballasts, and plastic trays. These materials are also known as "true waste" because there are currently no recycling options for these materials.

Plastic bags/film – All bags including grocery, trash and sandwich bags. Also includes shrink wrap, plastic pallet wrap, and bubble wrap.

Plastic bottles and tubs – Plastic containers with a neck, including containers for beverages and other fluids and all plastic tubs.

Rigid Plastics – Plastic CD or DVD cases, plastic crates, and receipt spools.

Steel/tin cans – Containers made of steel or tin, most often non-refundable metal beverage and food containers.