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# PSU University Services Building LEED EB Materials Audit Report

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# PSU University Services Building LEED EB Materials Audit Report

Assessed on behalf of: Portland State University's Campus Sustainability Office

August 31 | 2018

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## Executive Summary

This report provides Portland State University's (PSU) Campus Sustainability Office (CSO), with an objective third party LEED O+M Materials Assessment of PSU's University Services Building (USB). The data collected for this audit provides CSO with insight into the building's current waste composition and diversion rate. Additionally, it identifies opportunities to reduce the amount of recoverable materials ending up in the landfill stream. Community Environmental Services (CES) conducted material audits for 100% of USB's landfill-bound, commingled recycling, and compost streams during a 24-hour period. While, audited construction and demolition (C&D) materials were generated over the course of a week.

Highlights from the report include:

- Of the 435.97 pounds of materials sorted, 85.1% of all streams were recoverable through the commingled recycling and C&D, glass bottles and jars recycling, and compost stream. The overall diversion rate for these classifications in USB is 96.9%. An additional 3.5% of material could have been diverted via reuse.
- Over 15 pounds of office reuse materials were found throughout the load – a third of which stemmed from the landfill-bound stream - that could be diverted to PSU's existing Reuse Room or utilized by in-office staff.
- The compost stream had the lowest diversion rate at 52.7%, which was comprised largely of food scraps.
- The commingled recycling and C&D materials stream had an outstanding proper diversion rate of 99.4% and was comprised mostly of construction and demolition materials as well as mixed paper.

Based on these key findings, recommendations by CES to improve CSO's current systems within USB include:

- Reduce the amount of food scraps in the landfill-bound stream by implementing incentive programs and conducting outreach to office staff.
- Further promoting use of durable serveware and mugs from break rooms/kitchenettes to move away from single-use items such as coffee cups, plates, and utensils.
- Encourage use of current recoverable channels for reusable items like binders and daily planners via reminders about PSU's Reuse Room and/or encouraging in-house reuse shelves.

## Section 1: Background

In January of 2018, Brandon Lesowske of Portland State University's (PSU) Campus Sustainability Office (CSO) contacted Community Environmental Services (CES) to conduct a LEED O+M Materials Assessment of PSU's University Services Building (USB) located at 617 SW Montgomery St., Portland, Oregon 97201. CES is a research and services unit at Portland State University, specializing in materials audit and diversion improvement education.

The objectives of the current LEED materials audit are as follows:

- Determine the composition of USB'S material streams, which include landfill bound, commingled recycling, and compost materials.
- Assess the materials generated from a time period that reflects typical business operations. The audit includes hand sorting the material streams into specific categories, weighing sorted materials, recording the data, and making qualitative and quantitative observations.
- Determine USB'S material diversion rates based on the material audits, and make recommendations to improve diversion practices for each material stream.
- Provide documentation for LEED O+M credit application under the "Materials and Resources: Solid Waste Management – "Waste Stream Audit" credit section of "Operation and Maintenance."

### **University Services Building's Current Diversion Plan**

USB houses a multitude of university-affiliated departments including PSU's carpentry shop, PSU Stores, along with offices such as the Capital Projects and Construction office and Advising and Career Services center. Led by CSO, all of the office and public areas have been allocated standardized and buddied waste stream collection bins. USB's shop areas are over seen by the on-site shop manager.

Materials generated by USB are collected by Republic Services. Landfill-bound materials are collected six days a week, Monday through Saturday and are stored in two 4-yard dumpsters. Commingled recycling is picked up five days a week, Monday through Friday and is stored in one 4-yard commingled dumpster. Glass is collected by PSU staff on Mondays and taken to the Smith Memorial Student Union (SMSU) building for service. Compost is serviced twice a week on Tuesdays and Fridays by PSU janitorial staff and is also taken to SMSU for service by the hauler. C&D waste is collected each Tuesday and on-call as needed by PSU staff and taken to the Landscape Yard and placed in a shared 20-yard drop box that.

## Section 2: Sort Methodology

Three materials stream audits were conducted by CES staff for USB, which included material audits for landfill-bound materials, compost, and commingled recycling and C&D. The material audits date and time periods were chosen to reflect materials generation during typical business hours over the course of 24-hours at USB or a week for the C&D materials. The tenants were not informed of the material audits in advance to avoid differentiation in materials generation and practices. CES worked with building management to ensure that the time period of generation was not subject to variations in building-occupant activities.

The 24-hour material audits for all landfill-bound materials, compost and commingled recycling as well as weekly generated C&D materials were conducted by CES staff on June 26th, 2018. All materials were sorted by CES staff in accordance with the LEED O+M waste audit requirements. The material categories used for the audit are detailed in the materials categories section.

### Material Categories

For the audits, materials from each stream were sorted into 21 material categories listed in Table 2.1 below. A detailed description of each material category is provided in [Appendix A: Glossary of Material Categories](#).

18 of the material categories listed in Table 2.1 were utilized according to LEED O+M and CES standards. The **additional 3 categories: Aseptic, Construction and demolition, and Foam core** were chosen due to their observed presence in the materials stream during the sorting process. Materials that make up a significant portion of the waste stream are highlighted and addressed by CES in [Section](#)

<i>Commingled Recycling</i>	<i>Compost</i>	<i>Additionally Recoverable</i>	<i>Non-Recoverable</i>
Corrugated cardboard	Food scraps	E-waste	True waste
Mixed paper	Compostable bags	Reuse	Restroom waste
Plastic bottles & tubs		<b>Construction and demolition</b>	Single-use hot cups
Mixed metals			Single-use cold cups
Glass bottles & jars			Single-use food serviceware
<b>Aseptics</b>			Plastic film
			Food-soiled fibers
			Styrofoam
			Liquid
			<b>Foam core</b>

Table 2.1: Material categories

[3: Observations](#) and [Section 4: Findings](#) in order to discuss the opportunities for reduction and diversion associated with these material categories.

The four (4) general material classifications take into account the existing diversion opportunities in the Portland Metro Region and at USB. These classifications are further defined as:

**Commingled recycling** materials are required to be recycled by businesses under the Metro regional government’s business recycling mandate. Please note that in the Metro region, glass bottles and jars are recycled separately from the commingled recycling and any other commingled category listed. This dual stream method of recycling glass bottles and jars separately allows for better quality and viability of recyclable materials as products and commodities. Commingled recycling materials are collected by Republic Services.

**Compostable** materials are items that are accepted under Metro's current compostable material guidelines for commercial businesses.

**Additionally recoverable** materials are those that have the opportunity to be recovered through an expanded diversion program or an existing non-primary hauler diversion system at PSU. Please note that all additionally recoverable materials are unacceptable in the commingled recycling or compost streams.

**Non-recoverable** materials are those that cannot be diverted from the landfill through PSU's existing collection systems' markets and/or processing facilities. In addition, some of these items such as plastic film and rigid plastics can experience fluctuations in recoverability due to the volatility of global secondary commodity markets and are sometimes more readily recyclable than during other times. Recently, China has enacted the Green Fence Policy, which aims to curtail the amount of contaminated recyclables and waste that is being sent there. Thus, currently plastic film and Styrofoam are not categorized as additionally recoverable due to this policy.

## Section 3: Observations

The following qualitative observations were made for each material stream. Associated photos can be found on the proceeding page.

### Walk through photos

1. Buddied collection bins found throughout the building: carpentry shop, public areas, and kitchenettes (see Images 3.1 through 3.3)
2. Some collection bins lacked signage or were not buddied (see Images 3.3 and 3.4)
3. Kitchenettes were stocked with durable dishware (see Image 3.5)
4. A Keurig machine was found along with single-use cups and single-use coffee ware (see Image 3.6).



Image 3.1: Buddied collection station in hallway



Image 3.2: Buddied collection station in office kitchenette



Image 3.3: Buddied collection station in shop that lacked signage



Image 3.4: Isolated landfill-bound container in outside stairwell



Image 3.5: Durable dishware in the kitchenette



Image 3.6: Keurig station found in kitchenette



## Key Waste Stream Observations

1. Food scraps comprised the largest landfill-bound category by weight (see Image 3.7)
2. Office reuse made up the second largest landfill-bound recoverable material (see Image 3.8)
3. Construction and demolition waste made up a significant amount of the commingled and C&D stream (see Image 3.9)
4. True waste was the largest non-recoverable material in the commingled and C&D stream (see Image 3.10)



Image 3.7: Landfill-bound food scraps



Image 3.8: Landfill-bound office reuse



Image 3.9: Construction and demolition waste in the commingled recycling and C&D stream



Image 3.10: Construction and demolition waste in the commingled recycling and C&D stream



Image 3.11: Construction and demolition waste in the commingled recycling and C&D stream



Image 3.12: True waste in commingled recycling and C&D streams

## Section 4: Findings

Findings resulting from the material audits are cited in terms of the material weight in pounds. Please note that lighter materials such as plastic film, Styrofoam, plastic bottles and tubs, and single-use drink cups/serviceware can contribute to a large percentage of volume in the waste stream, yet when considered by weight alone, these materials may not appear as a significant component of the load.

### All Streams Combined

The combined weights of all streams—landfill-bound, commingled recycling, and compost generated over 24-hours of operation and weekly C&D materials at University Services Building—totaled 435.97lbs (see Table 4.2 on the next page).

By accounting for the misplaced materials from any given stream, a clearer picture of the true rate of diversion for that material stream emerges. Table 4.1 shows that 99.4% of commingled recycling and C&D materials were being properly diverted. Of compostable materials, only 52.7% of materials were properly placed in the compost stream. USB’s overall diversion rate was 96.9% (see Figure 4.1). An assessment of the glass bottles and jars recycling stream was not conducted upon request by the client.

CLASSIFICATION	TOTAL GENERATION	PROPERLY DIVERTED	DIVERSION RATE
Commingled Recycling and C&D	354.78	352.49	99.4%
Glass Bottles and Jars	2.54	0.00	0.0%
Compostable	13.75	7.24	52.7%
<b>Streams Combined</b>	<b>371.07</b>	<b>359.73</b>	<b>96.9%</b>

Table 4.1 Diversion rates by stream

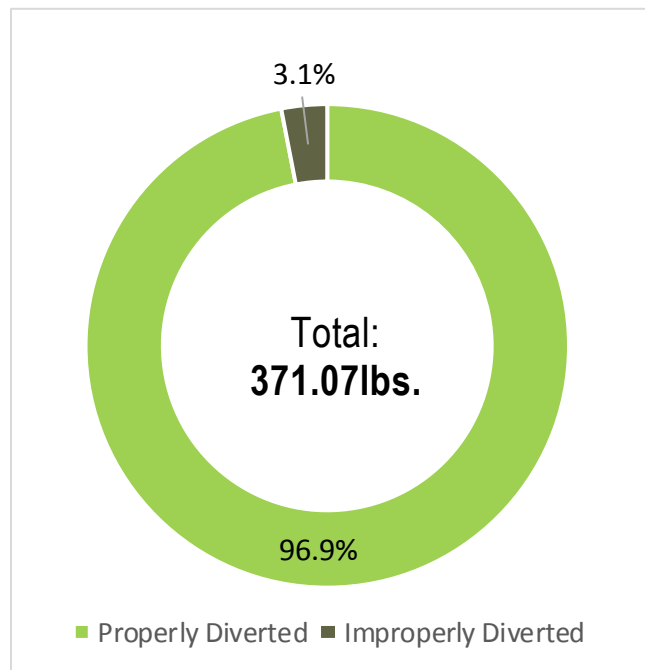


Figure 4.1: Visual of properly diverted versus misplaced divertible materials by percentage

The proceeding subsections provide more detail on each individual material stream, presenting data collected from each of the materials audits. Findings from the landfill-bound, commingled recycling, and compost streams are presented separately in Table 4.2. The commingled recycling and C&D stream data was differentiated based on where the materials originated within the building.

MATERIAL	LANDFILL-BOUND		COMMINGLED AND C&D		COMPOST		
	Lbs.	%	Lbs.	%	Lbs.	%	
RECOVERABLE MATERIALS	MIXED PAPER	1.93	5.6%	124.06	31.5%	-	-
	PLASTIC BOTTLES & TUBS	0.28	0.8%	1.85	0.5%	-	-
	CORRUGATED CARDBOARD	-	-	92.41	23.4%	-	-
	MIXED METALS	0.03	0.1%	7.41	1.9%	-	-
	ASEPTICS	0.05	0.1%	-	-	-	-
	GLASS BOTTLES & JARS	-	-	2.54	0.6%	-	-
	<b>TOTAL</b>	<b>2.29</b>	<b>6.6%</b>	<b>228.27</b>	<b>57.3%</b>	-	-
RECOVERABLE MATERIALS	FOOD SCRAPS	5.96	17.3%	0.55	0.1%	6.01	82.1%
	COMPOSTABLE BAGS	-	-	-	-	1.23	16.8%
	<b>TOTAL</b>	<b>5.96</b>	<b>17.3%</b>	<b>0.55</b>	<b>0.1%</b>	<b>7.24</b>	<b>98.9%</b>
RECOVERABLE MATERIALS	OFFICE REUSE	5.30	15.4%	10.14	2.6%	-	-
	CONSTRUCTION AND DEMOLITION	-	-	126.76	32.2%	-	-
	<b>TOTAL</b>	<b>5.30</b>	<b>15.4%</b>	<b>136.90</b>	<b>34.7%</b>	-	-
NON RECOVERABLE MATERIALS	RESTROOM WASTE	5.39	15.7%	-	-	-	-
	TRUE WASTE	4.44	12.9%	22.71	5.8%	-	-
	LIQUIDS	3.96	11.5%	-	-	-	-
	FOOD-SOILED FIBERS	3.50	10.2%	2.27	0.6%	0.08	1.1%
	SINGLE USE FOOD SERVICEWARE	1.32	3.8%	0.38	0.1%	-	-
	SINGLE-USE COLD DRINK CUPS	1.06	3.1%	0.06	0.0%	-	-
	SINGLE-USE HOT DRINK CUPS	0.96	2.8%	0.30	0.1%	-	-
	PLASTIC FILM	0.26	0.8%	0.13	0.0%	-	-
	FOAM CORE	-	-	2.42	0.6%	-	-
	STYROFOAM	-	-	0.22	0.1%	-	-
<b>TOTAL</b>	<b>20.89</b>	<b>60.7%</b>	<b>28.49</b>	<b>7.2%</b>	<b>0.08</b>	<b>1.09%</b>	
<b>GRAND TOTAL</b>	<b>34.44</b>	<b>100.0%</b>	<b>394.21</b>	<b>100.00%</b>	<b>7.32</b>	<b>100.0%</b>	
<b>ALL STREAMS COMBINED</b>	<b>435.97</b>						

Table 4.2: Overall composition of combined materials streams

## Landfill-bound Stream

A total of 34.44 pounds of landfill-bound materials were generated over 24-hours of operation at the University Services Building. Figure 4.2 and Table 4.2 present the material weights according to the material categories outlined in [Section 2: Sort Methodology](#).

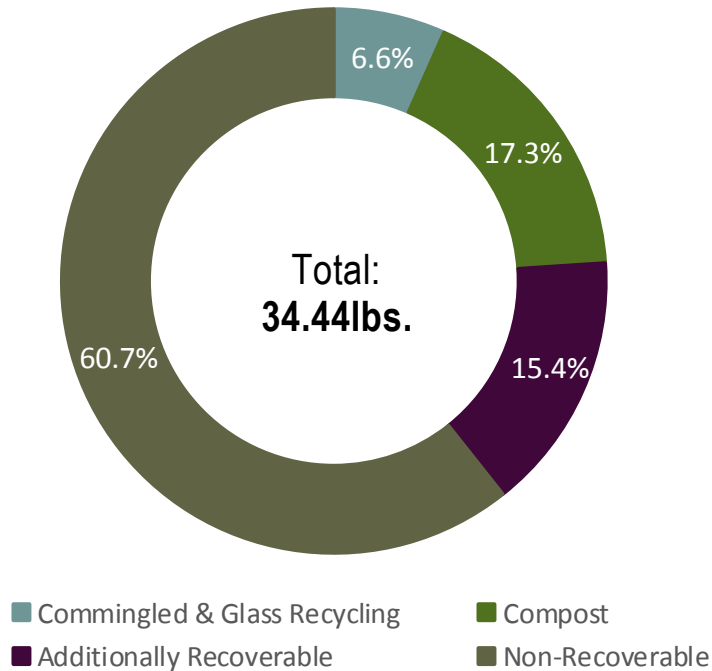


Figure 4.2: Landfill-bound stream general composition

According to the data, 39.1% of the landfill-bound materials could have been diverted through USB's existing recovery systems including compost, commingled recycling, glass bottle and jar recycling, and their additionally recoverable programs. Commingled recycling made up 6.6% (2.29lbs.), additionally recoverable materials made up of reuse items such as binders and day planners comprised 15.4% (5.30lbs.) and compostable materials – food scraps - made up 17.3% (5.96lbs.) of the landfill-bound stream and 43.3% of compost of all streams combined.

Rather than going to landfill, office supplies could be diverted and salvaged through PSU's Reuse Program and food scraps could be composted.

### All Recoverable Streams

The commingled recycling and C&D and compost streams had little contamination with contamination rates of only 10.6% and 1.09% respectively. The materials in the commingled recycling and C&D stream have been source separate based on the origin of the materials – PSU Stores, Carpentry Department, and USB Offices (see Figures 4.3 thru 4.5). Construction and demolition materials were found predominantly in the carpentry department stream and were made up of materials like buildable lumber, wood paneling, and mixed metal materials. It is important to note that PSU facilities, is tasked with sorting all materials from the Carpentry Department and PSU Stores. Upon further examination, it is clear that all facilities staff are sorting materials properly, which has had an incredible impact on the diversion rate being close to 70% for materials flowing out of those facilities. The majority of office reuse materials throughout the commingled recycling and C&D stream were found in the office space waste.

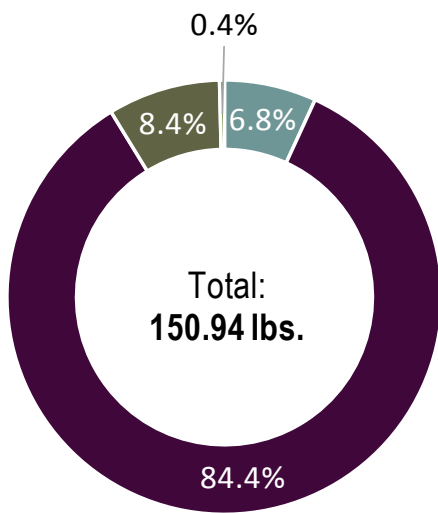


Figure 4.3: Carpentry Department

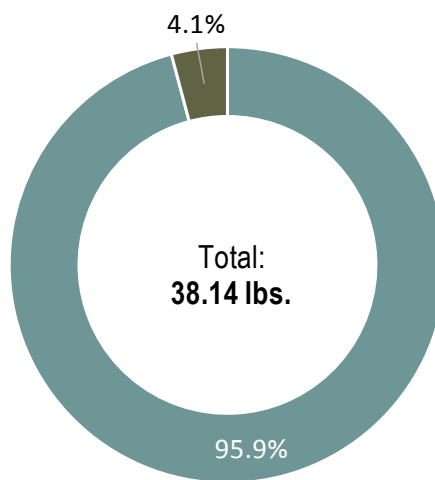


Figure 4.4: PSU Stores

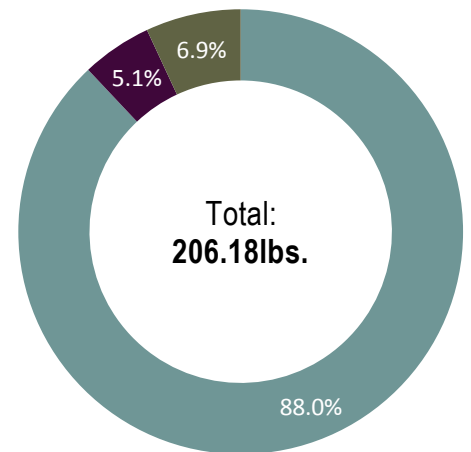


Figure 4.5 : Office Departments

- Commingled and Glass Recycling
- Additionally Recoverable
- Non-Recoverable
- Compost

## Section 5: LEED O+M Materials Generation and Diversion Table

Table 5.1 and Figure 5.1 show the material categories according to the LEED O+M Materials Generation and Diversion guidelines. Please note that some LEED O+M category definitions differ slightly from those used in CES analyses, see the “LEED O+M Materials Generation and Diversion Table Glossary” in the following pages. The Waste Stream column gives the total weight of the specific material regardless of which material stream it was deposited in. For example, the Cardboard weight is a combination of cardboard found in the commingled recycling, glass, and landfill-bound streams. The Percentage of Total Waste Stream column displays how much of the building’s entire waste stream is comprised of that material. The Waste Diverted column gives the weight of the specific material that was properly diverted to the recycling stream. For example, the Plastic weight is the amount found in the commingled recycling stream alone. The Percentage of Waste Type Currently Diverted from Waste Stream column displays the percentage of each specific material that was properly diverted. This indicates, for example, that approximately 53% of Wet Waste was properly diverted. Please note that ‘Other Waste’ does not have figures for the Waste Diverted or Percentage of Waste Type Currently Diverted from Waste Stream columns because Other Waste is not divertible within University Services Building’s existing diversion systems.

Figure 5.1 provides the diversion rate of each material for which a diversion system currently exists at USB. It is clear that there is room for improvement in some materials’ diversion rates in terms of their collection and diversion practices, particularly in regard to Wet Waste.

Waste Type	Waste Stream	Percentage of Total		Percentage of Waste Type
		Waste stream	Waste Diverted	Currently Diverted from Waste Stream
Metal	7.44	2%	7.41	100%
Mixed Paper	126.04	29%	124.06	98%
Cardboard	92.41	21%	92.41	100%
Glass	2.54	1%	0.00	0%
Plastic	2.13	0%	1.85	87%
Wet Waste	13.75	3%	7.24	53%
C&D	126.76	29%	126.76	100%
Other Waste	64.90	15%	N/A	N/A
<b>Total</b>	<b>435.97</b>	<b>100%</b>	<b>232.97</b>	

Table 5.1: LEED Materials Generation and Diversion rates

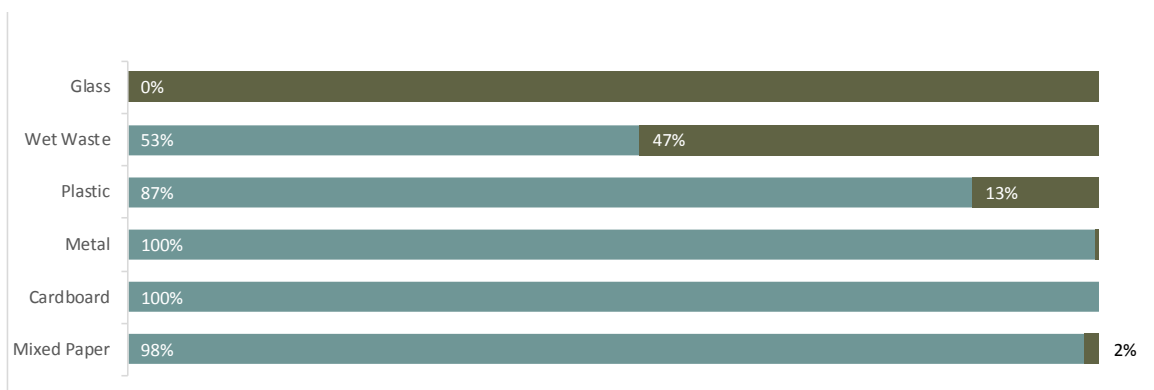


Figure 5.1: Diversion rates for each divertible material

## LEED O+M Materials Generation and Diversion Table Glossary

**Metal** – Containers made of aluminum, steel, or tin, including containers for beverages, food, and other materials; this includes aerosol cans and clean aluminum foil.

**Mixed Paper** – Office paper, newspaper, magazines, phonebooks, paper board/soft cardboard, folders, scrap paper, sticky notes, shredded paper, paper bags, egg cartons, cereal boxes, and all other non-corrugated cardboards; this includes aseptic containers such as gable-top milk and juice cartons and square-shaped cartons often used for soups or soy milk.

**Corrugated Cardboard** – Corrugated boxes or sheets used for shipping and packaging materials.

**C&D** – A mix of 80%+ divertible materials that are source separated into a construction roll-cart that is separated at the third party site. Items can include drywall, rubber floor siding, cement, paint chips, wood paneling and buildable lumber, etc.

**Glass** – Bottles and jars made of glass.

**Plastics** – Plastic bottles and tubs; this includes containers for beverages and other fluids, plastic tubs of primarily food grade plastic often used for yogurt, margarine, and other food or non-food materials, rigid plant pots larger than four inches, and plastic buckets five gallons or smaller.

**Wet Waste** – Vegetables, fruit, grain-based food scraps, meat, fish, fat, bones, eggshells, coffee grounds and paper fibers contaminated with food, including coffee filters, soiled napkins, soiled paper bags, that meet the guidelines set by City of Portland Bureau of Planning and Sustainability. This is the definition that LEED uses for wet waste. The solid waste community may define wet waste differently. It is sometimes defined as a general mix of landfill-bound materials, which is in contrast to 'dry waste,' or construction materials such as wood, metals, and glass, and other recyclables.

**Other Waste/Miscellaneous** – This category includes both non-recoverable materials (single-use drink cups, single-use food containers, restroom waste, liquid, etc.) and other recoverable materials (rigid plastics, plastic film, office reuse/donatable materials, printer toner, polystyrene expanded foam block, and polyethylene expanded foam sheets.)

## Section 6: Discussion

The quantitative data in [Section 4: Findings](#) paired with observations in [Section 3: Observations](#) indicates that the University Services Building has an outstanding overall diversion rate of over 97%. The current commingled recycling and C&D stream diversion programs are very successful with over a 99% diversion rate. The compost stream was less successful with a diversion rate of approximately 53%, however there was less than 14 pounds of compost materials found in all streams combined. From the data assessed, compost has the highest opportunity for improved diversion from the landfill. The construction and demolition waste found was properly diverted to the associated recoverable stream, which indicates carpentry staff properly follow diversion protocol of these materials. However, it should be noted that construction and demolition materials have an estimated contamination rate of 20% – but due to the agreed upon sorting process between CES and the client, these materials were compiled together and considered properly diverted under the “Construction and demolition” category.

Only 53% of compostable materials throughout all streams were properly diverted. All of the improperly placed compostable items were food scraps, indicating that these were unfinished or inedible snack and lunch items from the office spaces and carpentry department. Kitchenette spaces were properly fitted with compost bins and signage, which suggests that the low diversion rate of these materials are likely due to either a lack of composting knowledge or interest in following the expected composting protocol.

To address issues within the compost stream, CSO could connect with the offices and communicate the findings and create an in-house incentive program to promote interest in engaging in diverting food scraps.

There was over 15 pounds of office reuse items found in the streams overall. CSO should promote the Reuse Room to office staff or consider starting a “Reuse Runners” program for PSU’s offices similar to the current “Mug Runners” program created to save durable mugs and water bottles on campus.



## Section 7: Recommendations

These recommendations are based on findings and observations from the University Services Building. The reasoning behind these recommendations can be found largely in [Section 6: Discussion](#). Primary recommendations from CES include:

### Improve Composting Diversion Rates

- **Reduce the amount of food scraps in the landfill-bound stream by implementing incentive programs and conducting outreach to office staff.** The compost stream had a low diversion rate at 52.7%. Within the landfill-bound stream, food scraps accounted for 17.3% of all the materials observed.
  - Conduct outreach to office staff and provide additional guidance on how to properly divert food scraps from the landfill. This could include a brief email update, bulletin board notices (if applicable), as well as additional promotional signage.
  - Create an incentive program that offices can use to encourage engagement.
  - If departments within USB are part of CSO's Climate Champions program, remind those departments of the program's expectations.

### Encourage Use of Durable Serviceware

- **Utilizing durable serviceware in break rooms/kitchenettes to move away from single-use items such as coffee cups, plates, and utensils.** Within the landfill-bound stream, single-use serviceware and cups accounted for almost 10% of the stream.
  - Conduct outreach to office staff to make them aware of durable serviceware and mugs. This could include a brief email update, bulletin board notices (if applicable), as well as additional promotional signage.
  - Replace single-use hot cups availability at kitchen counters with tray of mugs to encourage use of durable serviceware
  - Invest and make available several durable takeout containers to attempt to reduce the reliance of single-use serviceware
  - Incorporate educational programming to reduce single-use food serviceware ending up in the streams

### Improve Diversion of Reuse Items

- **Encourage use of current recoverable channels for reusable items like binders and daily planners.** Over 15 pounds of office reuse materials were found in the USB stream and while this made up a small portion of the waste stream overall, this amount of reuse material can be diverted to the Reuse Room for the dual benefit of reducing amount of materials being sent to the landfill as well as providing resources to the student body.
  - Remind offices about the Reuse Room in Cramer Hall
  - Encourage offices to have an in-house reuse shelf
  - Create a "Reuse Runners" program similar to the Mug Runners program currently offered that can be implemented in departments campus-wide.

## Appendix A: Glossary of Material Categories

**Aseptics** – Containers such as gable-top milk and juice cartons and square-shaped cartons often used for soups or soy milk. This category is an accepted material in the commingled recycling.

**E-waste**– Discarded electronics such as central processing units (CPUs), monitors, televisions, cell phones, microwaves, radios, printers, fax machines, cords, and related office equipment.

**Construction and demolition/C&D** – a mix of 80%+ divertable materials that are source separated into a construction roll-cart that is separated at the third party site. Items can include drywall, rubber floor siding, cement, paint chips, wood paneling and buildable lumber, etc.

**Corrugated cardboard** – Corrugated boxes or sheets used for shipping and packaging materials.

**Foam core**– Lightweight polystyrene filled paper board

**Food scraps** – Vegetable, fruit, grain-based food scraps, meat, fish, fat, bones, eggshells, tea bags, and coffee grinds.

**Food soiled fibers** - Paper fibers contaminated with food, including soiled napkins, soiled paper bags, and paper towels. This category includes items such as pizza boxes and waxed cardboard. All fibers are non-compostable.

**Glass bottles and jars** – Bottles and jars made of glass. This category can be split up between redeemable and non-redeemable glass depending upon whether it is accepted under Oregon's Bottle Bill. This category excludes light bulbs, flat glass, flower vases, drinking glasses, window glass, and tempered glass such as baking dishes.

**Liquid** – Liquids that were in containers in the load.

**Mixed metals** – Containers and metal pieces made from any type of metal except aluminum; includes metal containers as well as scrap metal.

**Mixed paper** – Includes office paper, newspaper, magazines, phonebooks, paper board/soft cardboard, folders, scrap paper, sticky notes, shredded paper, paper bags, egg cartons, cereal boxes, and all other non-corrugated cardboards. This category may include or exclude aseptic materials such as gable-top milk and juice cartons and square-shaped cartons often used for soups or soy milk in this report. In figures or tables where aseptic containers have been called out in their own category, the mixed paper category excludes aseptics.

**Plastic bottles and tubs** – Plastic containers with a neck, including containers for beverages and other fluids; plastic tubs of primarily food grade plastic often used for yogurt, margarine, and other food or non-food materials, rigid plant pots larger than four inches, and plastic buckets five gallons and smaller.

**Plastic film** – All clean plastic film bags including grocery and sandwich bags. Also includes shrink-wrap, pallet wrap, bubble wrap, and plastic films.

**Reuse** – Items that may be reused through donation to a program or by in-house programs such as for office supplies or furniture.

**Restroom waste** – Bathroom paper towels and other related items.

**Single-use hot/cold cups** – Non-durable, non-recyclable single-use cups for either hot or cold beverages. These cups may be made of plastic, plastic-lined paper, plastic-embedded paper, expanded polystyrene foam, or compostable plastics.

**Single-use food serviceware** – Non-durable containers, plates, dishes and flatware designed for single use and used to serve and transport food. These may be made of plastic, plastic-lined paper, plastic-embedded paper, expanded polystyrene foam, or compostable plastics

**Styrofoam** - High-density polyethylene foam that is commonly used as a packing material.

**True waste** – Materials that cannot currently be diverted. These materials are known as “true waste” because there are currently no recycling markets for these materials, and the materials are not compostable at local composting facilities, or the materials are not readily reused or fit for donation. Common materials include candy wrappers, chip bags, soiled textiles unfit for donation or recycling, polyvinyl chloride items such as gift cards, and non-recyclable mixed material items without current recycling markets. True waste includes non-recoverable glass.