Employee, Contractor and Student Education and Engagement

The success of a Diversion Program is driven by user participation. If those who generated the waste are not utilizing diversion programs, success will never be achieved as it is not enough to simply implement programs and expect those programs to be effective. There are two critical factors necessary to ensure that diversion programs are effective. These factors are education and engagement.

The recommendations outlined below are to enhance the current efforts in place on campus:

1. **Expand Engagement Campaign** – The campus has an opportunity to launch a campus-wide campaign to motivate students and staff to divert waste and reach collective goals.

   This campaign could include the following:
   
   - Promote the campus’ diversion programs.
   - Provide students a sustainability toolkit in the beginning of each year to highlighting best practices on how to reduce and divert waste.
   - Encourage the usage of compostable food containers and reusable mugs in lieu of disposable cups and packaging.
   - Set up peer exchange programs for staff and students to donate, sell or exchange goods.
   - Repair cafes operated by volunteers could fix broken items such as computers, bicycles, lamps, small appliances and clothing.
   - Implement a program to reuse or repurpose labware materials. This could be a student-led initiative.
   - Allow students in Environmental Management or Environmental Science programs to come up with innovative solutions to improve campus capture rate and reduce overall waste contamination.
   - Provide distinctions for food vendors that contribute to waste diversion efforts. These efforts could include vendors that:
     - Compost all pre-consumer food waste;
     - Provide only compostable or recyclable take out containers;
     - Donate excess food in lieu of disposal.

2. **Communication Program** – The campus could maintain a communication program to communicate to educate all stakeholders. The following are all methods that can ensure stakeholders understand the steps that are being taken to achieve environmental sustainability within the campus and feel included in its successes.

   **Promotion** - The campus could use internal communication such as newsletters, internal emails and educational boards to relay their message. As well as Earth Day or Environment Days to promote the waste management program through promotional materials or information booths; Waste Reduction Week in October is another opportunity for communication around waste reduction.

   Information can be tailored to reflect the findings of this assessment. For example, create a campaign to encourage employees to take a moment to put their mixed paper in the correct receptacle, no matter where they are on site.
Green information boards, like health and safety boards shown below, can be a centralized place for relevant environmental information and reference material.

3. **Training** - Regular training of university staff and food vendors and their employees on diversion procedures help demonstrate the campus’s commitment to diversion programs. Regular training has also been shown to aid in the elimination of inconsistency and complacency in diversion programs.

- Training can be provided with power point presentations and examples of educational signage and recyclable materials;
- Training can be just a few minutes during safety talks or weekly check-ins;
- Ongoing training and education are critical due to turnover of employees and contractors as well as occasional program changes;
- Management and supervisors could be trained on all aspects of the diversion program which will allow them to be an ambassador and a resource to support employees and visitors.

4. **Maintenance/ Custodial Review** – Campus management could regularly meet with the custodial manager and maintenance staff (custodians) as they may be able to provide hands on insight into aspects of the diversion program and areas of improvement.

Custodial staff should be trained on the diversion program during their orientation and reminded on a regular basis by their managers. Input from custodians and custodial managers may prove beneficial as they have firsthand knowledge of the program

- Training can be provided with power point presentations and examples of educational signage and recyclable materials;
- Training can be just a few minutes during safety talks or weekly check-ins;
- Campus managers could be trained on all aspects of the diversion program which will allow them to be an ambassador and a resource to support staff, students, contractors and visitors.
5. **Labelling and Signage** – Receptacle stations identified in the site tour were equipped with proper labelling and signage. However, some individual receptacles were identified without labelling and signage.

Below, is an example of colour coded pictorial signage. Each provider should be able to provide similar material to educate stakeholders.
Site Observations - It was identified throughout the assessment that there were inconsistencies in the types of receptacles used, location of receptacles and the availability of labelling; signage etc. The campus could strive to use a similar style of receptacles throughout the campus and ensure that all receptacles and collection bins are appropriately labelled.

- As shown below (from the Student Centre), some receptacle stations were equipped with labelling and signage.

- It is recommended that the campus update all their receptacle stations with signage that lists all acceptable materials that employees, contractors and students may handle during the day. Below are examples of recycling stations with labelling, but no signage.
▪ Some garbage bins were identified outside with no labelling or signage (examples below). These garbage bins should be paired with a recycling bin to ensure that employees and students have additional options to recycle.

▪ It was identified that paper towel was the prominent material provided in the washroom for staff. It is recommended, that the campus consider hand dryers to possibly reduce 15% of its landfilled materials. While there are some hygiene concerns relating to hand dryers, research shows that modern hand dryers are not inferior in hygiene\(^1\). Until Hand dryers are accessible, the campus could consider implementing an organics collection program and replace these black garbage bags with compostable bags to collect for composting.

\(^1\) Science based medicine
Continual Improvement and Additional Recommendations

The following are suggested actions to help the campus improve their internal processes and strive to reach higher diversion rates while maintaining a strong, efficient Diversion Program.

It is recommended that the campus regularly check with their waste hauler to confirm what materials are recyclable in their jurisdiction. As some of these materials may be integral to the operations of the campus, it is recommended that you regularly review opportunities to reduce or substitute these materials in your operations.

i. Contamination in Recycling Sample

Some non-recyclable materials were identified within the recycling sample. This included a significant amount of liquids, food, polyfoam and wrappers in recycling bags and cans, containers, and other plastics in paper towel bags. Based on the assessment about 19.5% of the of the mixed recycling sample could be considered contamination.

Education and awareness should be provided to ensure employees and students know that these materials may contaminate the recycling streams and, in some instances, force the material to be sent to landfill, thus wasting the efforts of others who made efforts to recycle. It is recommended that recycling receptacles be equipped with labelling reminding users that garbage is not accepted here.

Example of paper cup contamination in recycling sample
ii. Capture Additional Materials

Some non-traditional recyclable materials were identified in the landfill waste sample. This included pens and markers. Programs are available from companies like Terracycle in to provide the resources to set up a collection station at your campus, for such materials which can be dropped off at a nearby Staples location.

https://zerowasteboxes.teracycle.ca/

Example of collection box at a similar campus

In addition, Terracycle offer other recycling programs for common non-conventional materials which were identified primarily in break rooms during the audit. These include single use beverage pods, creamer containers, plastic wrappers, plastic cutlery and plates.

Example of non-conventional materials which can be recycled by TerraCycle

Break Room Separation - Zero Waste Box™
Snack Wrappers - Zero Waste Box™
Safety Equipment and Protective Gear - Zero Waste Box™
iii. Divert More Compostable Materials from Landfill

A program currently exists at the campus to capture organic materials in certain cafeterias and back of house kitchen and food preparation cleaning areas. The campus should work with food vendors to reduce food waste, coffee grinds and compostable containers going in landfill.

The campus should work with food vendors to consider:

- Reviewing food storage and handling options to reduce spoilage.
- Anticipating demand to avoid purchasing excess stock.
- Identifying which foods are typically left uneaten. Adjust menu and portion sizes accordingly. Provide menu options where customers could opt out of side orders.
- If possible, allow employees to take home unserved food.

As well, the campus and food vendors should remind customers that compostable packing could be placed in organics bins. More food vendors are providing compostable containers for packaging, but as outlined in Page 15, a significant amount of this is going to landfill.

The campus could also explore options to increase the availability of organics bins throughout campus, providing employees and students with more options to divert waste from landfill.

iv. Sustainability Goal Setting

It is recommended that the campus set specific diversion goals regarding their waste management program.

- Goals must be accompanied by a target date and progress reviewed at least once per year to maintain effectiveness.
- Through the process of goal setting, there is inherent motivation to meet those goals and it is believed that organizations who establish goals publicly are more likely to act with pressure from those who would like to see these goals met. Waste disposal represents a significant cost to the campus and all efforts to reduce disposal cost are beneficial.
- Managers and personnel may change but once the momentum is started and goals are set, new staff will be motivated to see projects through.
v. Alternatives to Recycling: Reuse Programs

According to the waste hierarchy, recycling should be considered after reduction and reuse programs have been considered. Materials that are still usable, do not need to be disposed of, could be donated, or sold for reuse.

Several options for donations exist in your region for materials such as used furniture (ReStore, Habitat for Humanity) or bulk containers in good condition. Materials can also be bought and sold on online platforms such as Kijiji Canada, Facebook Market Place and Craigslist. These platforms can be used to sell items no longer serving the facility and could be repurposed. As well, there are organizations such as the Material Exchange Program that can facilitate that help facilitate reuse or repurposing of materials.

**Material Exchange Program**, operated by Partners in Project Green, is a circular economy focused platform that allows businesses and non-profit organizations access to an inventory of materials that have been donated. Conversely, the facility can also donate their reusable materials toward this inventory.

Common materials accepted in the inventory include:

- Office Supplies
- Industrial Ladder
- Various Containers
- Chairs
- Planters
- Textiles

*Material Exchange - Partners in Project Green: Partners in Project Green*
vi. Purchasing Power

University of Toronto - Mississauga should use its purchasing power to influence its tenants/employees, suppliers and contractors to follow the same recommendations. A commitment to waste diversion should be a significant aspect within future contracts with service providers.

- The campus should establish a vendor selection protocol to reflect a commitment to the 3R’s: reduction, reuse and recycling;
- The campus should conduct “vendor pre-qualifications” to evaluate the protocol and vendor environmental track records;
- Contract language should reflect the campus’s objectives and allow periodic reviews to determine if those objectives are being met throughout the life of the contract;
- Get buy-in and support from contractors and service providers who work on site. All service providers, vendors or contractors should be aware of the environmental goals and be active participants, including education programs and purchasing decisions.

vii. Bin Assessment

Facility managers should, as part of their duties, periodically and routinely tour the campus to monitor the infrastructure of the waste diversion program. By ensuring recycling stations are present, and conveniently available throughout the campus, the recycling participation rate will improve. Ensuring that there are recycling receptacles in every area of the campus, where waste is generated, will allow for the proper source separation of materials.

The manager should ensure that all receptacles are clearly labelled, and pictorial guidelines are present to educate staff, as described above.

Black bags should never be used in recycling receptacles as they can often be confused as landfill waste and there is a risk that already sorted recyclables are disposed incorrectly.