

SUSTAINABILITY & WASTE MANAGEMENT

The Goals of Orientation in Terms of Sustainability

In order to determine a strategy pertaining to increased sustainability at Orientation 2014, we had to first set the goals we aimed to achieve. After extensive discussion between the VP Sustainability and the Orientation Sustainability Coordinator, the goals were set as follow:

89.0%
Overall Waste Diversion
CSU Orientation '14

- Create as little waste as possible in the preparation and execution of Orientation;
- Educate participants, including staff members, on sustainable waste management practices during the events;
- Engage in environmentally and socially responsible choices when making purchases;
- Educate ourselves before, during, and after the events to improve the sustainability of Orientation events;
- Bring awareness to sustainability in all of its forms, including the social and economic facets of sustainability

After extensively debating the question, we decided to aim for low-waste rather than zero waste for the events mainly for 2 reasons. First, because many events were held in open spaces (Open Air Pubs, Rethink Sustainability Street Festival, Club's Fair, etc.), we felt like it would be impossible to control everything that would be brought and disposed on site from the individuals attending. To prevent contamination of the composted and recycled wastes, trash bins were also included on the site of our events. Also, we did not have precedent results from the past year to guide us in achieving zero waste. We hope that the insights presented here can help future orientations achieve even greater standards of sustainability for the years to come.

The Strategy of Orientation in Terms of Sustainability

We now had to formulate a strategy to achieve the goals we had set in terms of sustainability for Orientation 2014. In brief terms, the strategy we undertook was set as follow:

To create as little waste as possible in the preparation and execution of Orientation

1. Purchase only compostable and recyclable disposable items to be distributed at the events
2. Purchase as local and organic as possible when it comes to food and overall materials.
3. Limit as much as possible the purchase of individually packaged materials
4. Ensure that sufficient numbers of recycling and composting bins would be placed on site
5. Create event specific signage for each bin type (compost, plastic-glass-metal recycling, paper recycling, and trash) to inform participants of the appropriate place to dispose of each items provided on site
6. Have a team of volunteers on site help participants direct their waste to the appropriate bin

N.B. For more information on merchandise and food purchase, refer to section 6 of the post-mortem.

To educate participants, including staff members, on sustainable waste management practices during the events

1. Host a mandatory 45 minutes training for staff on sustainability and waste management.
2. Have volunteers on site help participants direct their waste to the appropriate bin and provide them with information on 'what goes where' and why it is important to dispose properly of our wastes

To engage in environmentally and socially responsible choices when making purchases

1. Provide each suppliers with a mandatory list of questions to determine their engagement towards social responsibility and environmental responsibility
2. Compile and analyse the answer of each supplier on a product basis
3. Make a decision to purchase based upon the sustainability practices of each supplier

To educate ourselves before, during, and after the events to improve the sustainability of Orientation events.

1. Do research on sustainable event management. Use the university resources (such as EHS, the Sustainable Event Guide, last year's post mortem report, and Annex E of the CSU) to gather information on sustainability and waste management practices.
2. Approach all challenges with a flexible mind set. When you see that your strategy is not working, change it.
3. Value and make use of the knowledge of all. The input of your volunteers, participants, coworkers, etc. can be of great help when you are faced with a problem. Make sure that you encourage them all to formulate constructive criticisms to refine your strategy when needed.
4. Survey events' participants on their own sustainability knowledge and practices. Gather and publish this information to adjust your strategy.
5. Perform waste audits, gather and publish results. This is not only a great way to analyse your performance, it is also a great tool to help next year's Orientation planners formulate their own strategy and increase the CSU Orientation sustainability. Measuring the percentage of waste diversion allows you to know how much waste you have prevented to end in a landfill by either composting it or recycling it.

Bring awareness to sustainability in all of its forms, including the social and economic facets of sustainability

1. Promote local artists and local community groups by showcasing their work during the events;
2. Emphasize the role of community and social justice in sustainability;
3. Make events accessible to students through solidarity concert tickets for those in financial need, subsidized bikes for sale, free vegan food, and free tupperwares;
4. Maximize the use of non-disposable items with the R4 dish project;

Disposable Items, Bins and Signage

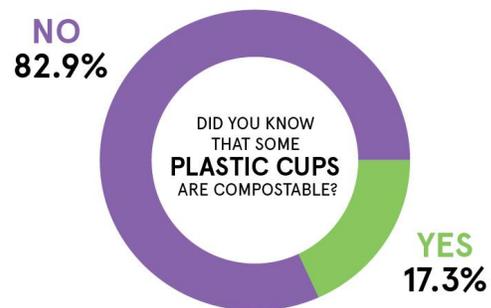
83.8%

Waste Diversion
CLUB'S FAIR '14

The first step in planning for waste management was to estimate the amount of food, beverages, and disposable items we would need for the events. This is more complex than it seems, but it is extremely important when you formulate your waste management strategy. I used the estimated attendance per event, as well as an event specific list of things to be distributed (food, pamphlets, drinks, packaging, etc.) to assess our needs in terms of bins type and quantity as well as disposable items.

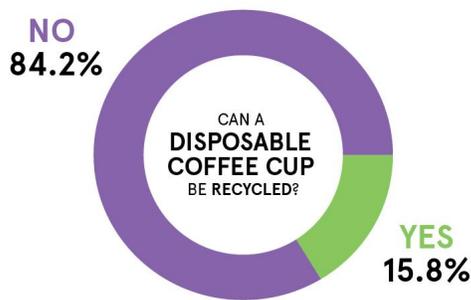
All disposable items were bought from Multiplus, the only supplier of Eco products in Montreal. We bought compostable cold cups, compostable coffee cups, compostable food trays (for the Club's fair), wood chopsticks (also compostable), compostable brown napkins, and compostable waxed paper. Faisal Shennib from Environmental and Health Services was extremely helpful in guiding us towards making the best choices for Orientation. The compostable food trays were really effective in diminishing the quantity of waste at Club's Fair, which has usually been known to be the most wasteful event of Orientation because all clubs would bring their own disposable items, most of which would be made of non compostable/ non renewable materials. By preventing clubs to bring their own disposable items (it was actually prohibited at the event), it made it much easier to control the waste of this event and guide students to compost the food trays.

I would highly recommend that this strategy be undertaken again in the future. For Club's fair, we also decided to use wood chopsticks instead of compostable forks because the compostable forks do not compost well at the Concordia composter.



These results are drawn from the responses of 164 respondents surveyed during the CSU Orientation between September 2, 2014 and September 12, 2014.

In terms of cold cups for drinks, we decided to go with compostable bioplastic cups made with 100% renewable resources. The fact that they are made with 100% renewable resources surely is better than using petroleum plastic cups. Still, most students do not know that cold cups may be compostable, and so they may put them in the recycling bin no matter how obvious your signage is. This is something that should be considered in the future. Yet, having volunteers in front of the bins helped a lot guide students put their compostable cold cups in the composting bin.



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In terms of disposable coffee cups, we decided to go with the compostable cups, which are not recyclable. The compostable coffee cups do not have a plastic lid because it prevents the use of non-renewable resources. There is not a sufficient amount of composting bins on campus, so compostable cups could be recycled in the Plastic-Glass-Metal recycling bin. We hoped that this way, students would make the effort to dispose of them rather than in the trash. We realized through our survey that most students know that disposable coffee cups can be recycled. We are recycling at Concordia. This is surely a ground on which to build our Orientation waste management, but also the individual waste management overall at Concordia. We decided not to purchase lids for coffee cups to attempt to reduce the amount of waste we were to produce. We are expecting around 4600 students to come to our free coffee mornings.

Orientation, not all of which would bring or buy a mug, not purchasing coffee lids surely reduced waste. For the free coffee mornings, we also decided not to buy plastic stirring straws, but rather opt for wood sticks, which are compostable. Linguines could also be a good option as they also are compostable.

In terms of the bins, make sure that you have a well detailed list of what you need to provide to Facilities Management. I made a list on an event basis, indicating the date, drop off time, pick-up time, location and the amount and type of each bin to be delivered. Brian Noseworthy and Brad Poapst were especially helpful in coordinating our needs on that front (you can find their contact information at the end of this section). Having many events happening on Reggie's and the Hive Terrace, we kept many of the

slim bins inside Reggie's for the whole two weeks, which made us revise what we would need in terms of delivery of bins for each event. Once again, Brian Noseworthy was especially helpful in allowing us to change the plan last minute. We had planned to have nine waste stations (each comprising 1 x 40L Compost bin, 1 x 40L PGM Recycling bin, 1 x slim paper recycling bin, 1 x slim trash bin) during Club's Fair and the RETHINK Sustainability Fest, which were our largest events. This proved to be a far too large amount of waste stations, which made it hard to control on site. With the help of the volunteers, we adjusted quickly to only have three waste stations on the street and two on the terrace, for a total of five stations instead of nine. This made it much more manageable as we could then have one volunteer per waste station to guide students in their waste disposal. Even with a large attendance, 2 waste stations sufficed for the terrace. Make sure to always have a sufficient amount of extra landfill waste, compost and recycling bin bags nearby.



In terms of the signage for the bins, we wanted to make it as simple as possible for participants to know where each item would go. We made large signs that said "Compost. What goes here?", "Recycling. What goes here?", and "Landfill Waste. What goes here?" on which we would put the actual items served at each event. Although there was much thought put behind the signs, we encountered some problems with them. First, we wrongly assumed that people understood that food is mostly compostable. As a result of this, we had to add a piece of paper on each compost sign that said "food here". Second, the trash signs had a picture of meat and cheese on them as meat and cheese are not compostable. Unfortunately, this confused people, and participants reportedly told the volunteers that they thought only meat and cheese could go there. Also, the Landfill waste signs were too large for the slim bins we had and would cover both the trash and paper bins due to their size. As a result of this, we decided to completely change the signs for landfill waste. We opted for a simple piece of cardboard with the words "Trash only". As we did not have signs for the slim paper bins, we made similar signs with the words "Paper only". Overall, I think that the signage was an important feature of the strategy. It definitely helped control where the waste would end up, even if we had to make some adjustments on site.

The Rethink Waste Volunteers Team

I believe that the Rethink Waste Team was a great success. While I was hoping for a total of 10 volunteers, I only received 8 applications. All applicants were offered a volunteering position. Unfortunately, one volunteer decided not to continue with the team after the first day. While the work was manageable with only seven volunteers, I would recommend to seek ten in the future. I prepared a training session for the volunteers, which was held on August 29. The training session touched upon the goals of orientation in terms of sustainability and the strategies to achieve these goals as discussed above, and the role of the volunteers.

The roles of the volunteers were set as follow:

1. Knowing where to dispose the disposable items and food, as well as other items at the events;
2. Performing on-site research by surveying participants;
3. Quickly educating students on “what goes where” before they dispose;
4. Making up for the mistakes of others. This included picking up trash left on tables, on the ground, etc.;
5. Preparing waste samples for the waste audits by identifying each bag and bringing them to the EV compactor room where the waste audits were performed;
6. Making sure that bins don't overflow. In the case that they would overflow, change the bags and call Facilities management to organize a pick-up.

87.9%
Waste Diversion
RETHINK FEST '14

The first thing I communicated with the volunteers was that I wanted this experience to be a learning one for all the participants, including myself. I did not believe that I had all of the answers on the best ways to achieve our low-waste goal and peer education goal. As such, it was important for me that the volunteers bring their input at all time in the process. I emphasized that point at many opportunities during the training session and I was happy to see the volunteers contribute to the ways we could better the strategy. During the training session, one of the volunteer, Gabrielle Caron,

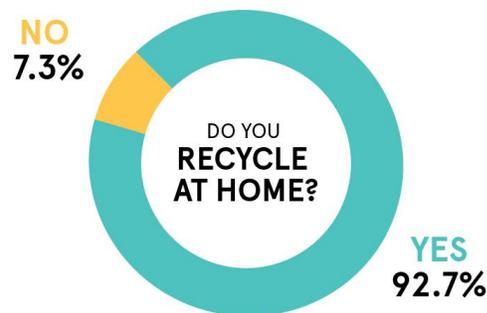
suggested that we perform one of our waste audits on site during an event. The team was very excited with this new idea so we decided to hold the Club's Fair waste audit on Reggie's Terrace during Open Air Pub, Friday Sept. 5. The volunteers all had great knowledge to contribute and having them share it was very helpful for everyone to gain knowledge on waste management and sustainability, and on ways to approach and educate students. It also created a strong team spirit amongst the team.

Prior to each of their shift, the volunteers were given a clipboard containing 1) the University posters for recycling, composting and trash, 2) surveys, 3) a "tool box" containing all phone numbers and procedures they may need, 4) a pair of safety gloves, and 5) a sheet for their personal notes.

After their shift, when possible, I would meet with the volunteers to discuss of the event, what went well and what did not, and make strategies to do better on the next event. I tried to go see the volunteers on site as often as possible to have their feedback and make sure everything was going well for them.

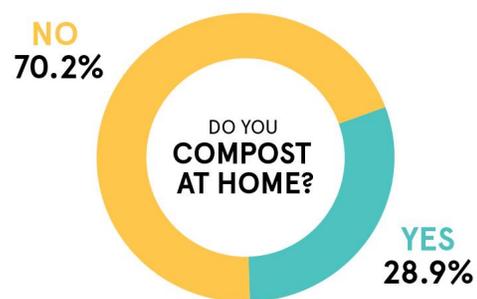
The volunteers' input proved extremely valuable to adjust when we needed to. Here are some of the notes they took during Orientation.

1. Students are surprised to see that the paper plates provided by People's Potato at the Rethink Sustainability Street Fest are compostable;
2. It would be great to have extra information on how is it that certain items are either compostable or recyclable, how does compost work exactly, etc.;
3. There is confusion amongst the students regarding the signage existing on the bins and our own signage, especially with the Landfill waste sign;



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4. The survey is a good instrument to approach students more easily and educate them;
5. Remaining next to the waste station has a good impact on controlling the waste because students come to us to be provided guidance when they are uncertain which bin is most appropriate for a certain item;
6. The signage has an overall great impact on directing students. Still, there seems to be confusion over the landfill waste sign as students seem to only register the 'meat' and 'cheese drawings';
7. The plastic-glass-metal bins seem to be the most abided by due to the circular hole in the lid;
8. Some sort of a lid on the landfill waste bins would probably have a positive impact on waste management as it seems that some students aim for the open bin;
9. Approaching students in a friendly manner is very important to make them sympathetic to what we are doing and why we are doing it;
10. Students have been giving good feedback on the signage. They feel that it makes it easier for them;
11. The waste stations that are not supervised by a volunteer are not managed more poorly. It appears that having a volunteer to help students direct their waste makes a large difference on where students actually dispose of their waste;
12. Asking students "where do you think that goes?" before they arrive to the station makes it fun and educative for them to dispose;
13. It would be great to have information regarding the impact of bleaching on the compostability of paper items.



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I would strongly recommend that a team of volunteers be formed for future Orientation. Their presence is, in my opinion, what made the greatest difference in achieving our goals this year. Their input was extremely valuable to adjust our strategy when needed. I would like to thank them all for their amazing involvement in the CSU Orientation 2014. Jiri Korycansky, Yasmeen Zahar, Esmaeel Kariminezhad, Khisnika Dassaruth, Gabrielle Caron, Jason Poirier-Lavoie, and Gabriel Townsend Darriau, thank you all so much.

Planning, Performing and Reporting on Waste Audits

Planning the Waste Audits

We first had to decide which events we wanted to audit. We wanted to have 5 waste audits, one for OAP, one for Club's Fair, one for Rethink Sustainability Street Fest, one for Jazz Night, and one for the Loyola BBQ. Once again, Faisal Shennib from EHS was extremely helpful in the process of planning the waste audits. He provided

most of the equipment needed. What was needed to perform the waste audits was 1) a scale, 2) 5 large buckets, 3) 4 labcoats, 4) safety gloves, 5) tables, 6) access to the EV Compactor room, 7) large labels to identify the bags to be audited, 8) 1 audit results spreadsheet per audit, 9) 1 clipboard, 10) plastic bags, trash bags, and compost bags to put in the buckets and dispose after the audit. With the help of Brian Noseworthy and Brad Poapst, I booked the EV Compactor room for the dates where we would perform the audits. They made sure that security would be informed and would grant us access

when needed, including when we would bring samples for the audits. We had set up 3 40L bins in the compactor room where the samples would be kept until the audit. I identified the bins to make sure that the sample would not be disposed before the audits. For each audit, I scheduled three volunteers plus myself. We planned that each audit would take a maximum of two hours to be performed. The longest audits ended up taking approximately 1 hour 30 minutes.

Performing the Waste Audits

Performing a waste audit is much more fun than it seems. It is important to remind all participants of the safety measures to be taken before starting the audit. We never know what could be found in a bag, and the safety of all participants must remain a priority at all times. It is also important to make sure that your scale is set in kilograms and that you tare it with the bucket prior to measuring the weight of each bag. The process is quite simple. Weight one bag in the bucket and note the weight on your result spreadsheet next to the type of bag you are auditing. Then, open the bag on the table, and distribute all items in your identified buckets according to whether it should have been disposed in the PGM recycling, paper recycling, trash, or compost. Once you have sorted the content of the bag in each category, weight the content of each category and write your result in your result spreadsheet for that initial bag. Do the same thing for each bag, one at the time. Having the university bin posters with you will surely help you determine what goes where in case of uncertainty. Make sure to dispose of the bags in the appropriate place after each audit.

All waste audits went very well. We unfortunately found one brand new CSU mug in one of the bags while performing the audit, which shows that there is still a lot of education to be made on waste management.

While we first planned to audit 5 events, the first OAP was cancelled so we could not audit for that event. Fortunately, we got that information quickly enough so we decided to audit the Free Coffee morning instead. We also wanted to audit the Loyola BBQ, yet this proved impossible due to a safety issue on site. A large amount of bees were surrounding the waste stations, and many bees had entered the bags. To prevent that the volunteers and staff be stung by the bees, we made the decision to cancel this audit. Also, as mentioned earlier, we decided to perform the Club's Fair waste audit during the Open Air Pub of Friday September 5. This was a great decision because it

exposed students to the fact that things happen with our waste after we dispose. Many interested students came to ask questions and it was overall a great experience.

Reporting on the Waste Audits

There is very valuable statistics that can be drawn from the waste audits. This step is what let you know if you achieved your goals or not. Measuring the percentage of waste diversion allow you to know how much waste you have prevented from reaching a landfill. Comparing yourself to your past achievement brings you forward. This was unfortunately not possible this year as no waste audits were performed previously by the CSU. Alternatively, comparing yourself to others can also give you an idea of how you did. University of Toronto claims to be the university with the largest waste diversion in Canada, with 75% waste diversion. Our results show that we achieved 89.0% waste diversion overall during Orientation. While the results of University of Toronto are campus wide, it still give us a good idea on how we did comparatively. I believe that our goals were largely achieved in terms of low waste, as only 11.0% of our overall total waste was landfill waste. There is still room for improvement in the future to bring this number as close to zero as possible.

The waste diversion was of 100% for the Free Coffee Morning, 87.9% for the Rethink Sustainability Street Festival, 83.8% for Club's Fair, and 68.8% for Jazz Night. The Jazz Night results were the least satisfying ones. I believe that this is due to the fact that we did not have a volunteer supervising the bins at all time. Yet, the quantity of total waste at this event was very small (1.6 Kg compared to 37.4 Kg at Rethink Sustainability Street fest, 25.9 Kg at Club's Fair, and 18.5 Kg at Free Coffee Morning), which explains its marginal impact on the overall waste diversion of Orientation. No disposable cups were used at the Jazz Night as the glasses were borrowed from the R4 dish project. Note that we were only able to account for what was disposed on site of our events, and thus there is a margin of error due to items that may have been disposed elsewhere. The samples were randomly chosen by the volunteers. To see the detailed results of the waste audits, refer to Annex C of this document.

The Survey on Sustainability and Waste Management

The survey on sustainability and waste management had three purposes. Firstly, it was to gather data on students' sustainability and waste management habits (Educate ourselves).

Secondly, it was to provide quick information to students before they would dispose, such as “did you know that some disposable plastic cups are compostable?” (Educate our peers). Thirdly, it was meant to help less outspoken volunteers approach students by giving them a reason for doing so.

The results that we gathered were surprising. Only 15.85% of the respondents knew that disposable coffee cups are recyclable. This provides us great insight on how we can make improvement at Concordia in general. Disposable coffee cups surely account for a large quantity of waste that could be diverted from landfill sites if we educate our peers as to where to dispose of them.

Unfortunately some data of the survey could not be used because a significant portion of the respondents did not answer certain questions. Better training on how to survey could solve this issue in the future.

Useful Resources

1) For Bins and cleaning services

- Brian Noseworthy, Custodial Services. 438-880-3058. brian.noseworthy@concordia.ca
- Brad Poapst, Custodial Services. brad.poapst@concordia.ca

2) For Waste Audits and Waste Management Advice

- Faisal Shennib, Environmental and Health Services. faisal.shennib@concordia.ca

3) For Non-Disposable Dishes

- Yasmeen Zahar, R4 Dish Project. 514-848-2424 x. 5918. See <http://sustainableconcordia.ca/working-groups/r4/the-dish-project/>

4) For Volunteers Outreach

- Priyanka Pandey, Sustainable Concordia. engagement@sustainableconcordia.ca