

Introduction

The goal of the project is to reduce the use of paper coffee cups and to normalize the use of them. Vancouver has already reached their initial goal to have a divergence of 83% being recycled and 17% to the landfill. Now the next step is reduction. Currently about 2.6 million single-use paper beverage cups are disposed of in Vancouver (City of Vancouver, 2017). Specifically, 63% is coming from the industrial, commercial and institutional garbage, 17% from multi-family homes, 12% from public waste bins, and 8% from single family homes (City of Vancouver, 2017). Thus far, the City of Vancouver has completed two rounds of consultations. Currently, they are working on a consultation paper that will be reviewed at stakeholder meetings, schools, and other community events (City of Vancouver, 2017).

Although CityStudio has worked with groups towards the zero waste initiative, they have not been involved in working with groups to reduce the use of single use items. We are the first group to be working with them on this goal. However, they have a 2020 target, which is to reduce total solid waste going to landfill by 50% from 2008 level (CityStudio, 2017).

Significance

We have two options to alleviate the environmental impacts of the use of paper cups. One is waste diversion and the other is waste reduction. Recycling has positive impacts, such as environmental preservation, resource and cost conservation (AbdRazack et al., 2017). Therefore, recycling paper cups is an improvement from putting them in the landfill. However, Vancouver is able to increase sustainability further by reduction as recycling still does harm to the environment (AbdRazack et al., 2017). Thus, the ultimate solution is not to produce waste in the first place (EPA, 2017). Reduction is important because it minimizes the energy and resources required to produce paper cups (EPA, 2017). In addition, it reduces greenhouse gases that enhances the rate of climate change (EPA, 2017). Therefore, with our video, we will be able to help the future generation by protecting the natural resources and alleviate the climate effect. From an economics point of view, reduction will decrease costs. Specifically, it will reduce Vancouver citizen's

taxes; it costs Vancouver taxpayers about \$2.5 million each year to dispose of waste (City of Vancouver, 2017).

The gap in knowledge of our project is that people do not have a good understanding about how waste reduction is more effective than recycling in sustainability. In addition, people do not realize how much waste they actually produce. Therefore, empowering individuals to make small changes in daily life is our focus on our project.

Objectives

Goal: To reduce the number of single use items in Vancouver by initiating a social media campaign that promotes the use of reusable coffee cups.

Objective 1: Develop a campaign using social media to normalize the use of single use items.

Objective 2: Develop a strategy to test our campaign. Measure the overall effectiveness of the video posting in reaching individuals and promoting behaviour change.

Objective 3: Compile the data and then analyze to share with our community partners to help make a difference and provide a foundation for future projects.

Method

To achieve our objectives we plan to create a creative and engaging video regarding paper coffee cups. Specifically, we plan to make a video using the estimated yearly paper coffee cup consumption of paper cup users of Vancouver. We will divide the City of Vancouver statistic of the paper cups used in Vancouver by the Statistic of Canada census data of the population in Vancouver to estimate the consumption. In the video we plan to show three main graphics along with statistical numbers. The first one being the yearly paper cup usage of an individual in a big garbage bin and the cups overflowing multiple locker. The second graphic will be people cutting a tree to produce the yearly amount of paper cups, and the environment cost of producing and disposal of paper cups. Specifically the cost of transportation to the recycling station, the cost of equipment and utilities to perform the waste diversion, and labour cost of employees in

the industry. The last graphic will display the amount of additional waste that is associated with paper cups; the sleeve and the plastic lid. Therefore, we are hoping to have an emotional impact by informing people on results of using a paper cup compared to reusable one.

Although it is difficult to determine the effectiveness of our video, we plan to count number of “views” on social media such as Youtube and Facebook. We will use the views as an indicator the number of people it reached.

The second idea we may use for promoting the reduction of the use of paper cups is by advising the public to create their own coffee mugs. As paper cups are usually dull in design, we will encourage people to design their own unique coffee mug. In the video, we will be demonstrating ideas on how to decorate the mug.

The third option of encouraging people to reduce the use of paper cups is creating a poster, which involves data such as the number of paper cups used each year, the amount of energy used to recycle it, and the number of trees are cut for producing paper cups. In addition, we will include the number of funds required, labor required, and the disruption on environment. We believe posters can be professional and attractive, therefore increasing the quantity and quality of audience engagement.

Outcomes

- Step towards reaching Vancouver’s Zero Waste 2040 goal
- Provoking video to change people’s behavior in the use of single use paper cups
- Delivery of detailed information in report and presentation for the community partners
- Inspire ideas in future projects in reduction of sustainable city plans
- Increase awareness about importance of reduction of single-use paper cups
- Final video will be available on social media campaigns by December 1st

References

AbdRazack, N. T. A., Medayese, S. O., Shaibu, S. I., & Adeleye, B. M. (2017). Habits and benefits of recycling solid waste among households in kaduna, north west nigeria. *Sustainable Cities and Society*, 28, 297-306. doi:10.1016/j.scs.2016.10.004

CityStudio *What We Do*. (n.d). Retrieved from <http://citystudiovancouver.com/what-we-do> United States Environmental Protection Agency. (2017). *Reducing and Reusing Basics*. Retrieved from <https://www.epa.gov/recycle/reducing-and-reusing-basics>

Vancouver, C. O. (2017, June 21). *Zero Waste Vancouver*. Retrieved October 03, 2017, from <http://vancouver.ca/green-vancouver/zero-waste-vancouver.aspx>