UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

# Managing Waste at Meekinson Arts Student Space (MASS) Melisha Charles, Cassandra Jeffery, Sanmini Koffi, Nyoman Nikki Wirawan Sugitha University of British Columbia GPP 504 Themes: Waste, Community, Materials

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Managing Waste at Meekinson Arts Student Space (MASS) M-suffer M

GPP 504 - Policy Analysis and Evaluation

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## **EXECUTIVE SUMMARY**

*The Problem* — Waste disposal in the Meekison Arts Student Space (MASS) is not effective or sustainable, leading to a diminished ambiance in the space and limiting student traffic.

The Solution — Waste management awareness campaign and improved sorting bins.

On behalf of the Arts Undergraduate Society (AUS), our team has been analyzing waste management in the Meekison Arts Student Space (MASS). Our primary goal is to understand the circumstances that may prevent students from sorting their waste appropriately in MASS, and to recommend potential solutions to remedy the problem. Moreover, our client is looking for ways to increase student traffic to MASS. Our research indicates that ineffective waste management contributes to low-levels of traffic in MASS, further underlining the significance of a timely and effective waste management solution.

After analyzing the problem and potential solutions, **our team suggests the implementation of a policy centred around waste education (awareness campaign) and improved infrastructure (larger-sized and more appropriately placed waste bins).** Using a two-pronged approach, our recommended solution will take into consideration policy development from both the AUS executive and the students who use MASS. It is our hope that our top-down, bottom-up approach will contribute to efficient waste management and increase student traffic.

All the members of the waste management team have contributed to the development and production of this project. Please view appendix, p.19 for a detailed breakdown of each member's responsibilities.

We would also like to take this opportunity to thank SEEDS, the AUS and Dr. Cesi Cruz for giving us the opportunity to apply our skill set to a great cause. We are grateful for the experience and hope our recommendations bring you closer to your goals.

Signed, Melisha Charles Cassandra Jeffery Sanmini Koffi Nyoman Nikki Wirawan Sugitha

### **CLIENT SUMMARY**

The AUS and the Faculty of Arts student body are expected to relocate once the Arts Student Centre (ASC) is established within the Oak Bosque. The AUS is hoping to enhance the student centre experience and reinforce this area's historical role as a student hub. The completion of the building, designed with an environmentally-friendly lens, will take several years. The purpose of this report is to address waste management ad interim. Moreover, it is our hope that the policies we put forth in this report will not only address waste management issues within MASS, but will also inspire better etiquette in the new ASC.

The building of the new student space will require the removal of eight trees on UBC's campus. As an environmentally-forward organization, the AUS recognizes the controversial nature of the new student space's location; however, the AUS team is committed to developing a long-term sustainability plan that will address some of the student-body's concerns. The AUS is aware of their shortcomings and they are actively working towards addressing them. As such, our team was commissioned to spearhead the development of a waste management policy in MASS. This policy will act as a pilot project for long-term sustainability within AUS more broadly.

Effective waste management has been a pervasive problem in MASS for years, and while some policies have been implemented to control increasing levels of waste in the past, such policies were primarily designed to tackle the waste created from events held in the student centre. Moreover, it is important to point out that past policies have been relatively effective in mitigating waste levels post-AUS events. The AUS is an environmentally-forward organization, and as such, they are adamant about proper waste sorting in the student centre. They also believe that better waste management practices would facilitate traffic growth to MASS. Our research confirms that their concerns and assumptions regarding waste management are warranted.

### THE POLICY PROBLEM

The following section outlines the context, policy problem, and its framework. The definition of the policy problem (figure 3) includes our framing techniques, identifies stakeholders, and addresses some of the potential consequences.

#### A. <u>Context</u>

The key issue our client faces is waste management in their student space, MASS. This pervasive problem limits AUS' environmentally-forward reputation, and it has been detrimental to the influx of students in MASS. To gain further insight on the issue, our team facilitated several meetings with the AUS team. Following our preliminary meetings, we conducted three observational sessions of daily interactions in MASS. These initial observations led us to believe that effective waste management in MASS is a concern.

We pursued our intuition further by conducting primary and secondary research on waste management practices. Our primary research will be discussed in subsequent sections. In terms of secondary research, we chose to focus on the NEST because it is a high-traffic building on campus (Waste, 2018). We touched base with Michelle Marcus, the Associate Vice President with the Sustainability department at the AMS Student Society to gain insight into waste management dynamics at the NEST. Marcus explained that appropriate sorting and high volumes of plastic pollution were persistent issues in the building.

Despite limited data regarding policy evaluation at this juncture, the desire of the AMS to implement a sound solution to the waste management problem in NEST stems from a rather scathing report on inadequate waste management in NEST. Given our intuition about the MASS building and the similar and recurring themes

we discovered in the 2018 *Waste Audit* by UBC's Common Energy, we used the NEST's study as a reference to understand waste management in student spaces.

The key takeaway from *UBC's Common Energy* report states that ineffective waste management was omnipresent in the NEST, and ultimately, UBC as whole. Indeed, despite UBC's waste diversion rate of 57% in 2016-2017, it seems the situation has become more alarming. Waste diversion rate refers to the percentage of waste that is deflected from the landfill. In fact, the waste diversion rate was only 34% in 2018. Based on this analysis, *Common Energy UBC* suggests that the true waste diversion rate at UBC lies between 27.65% and 40.72%. Moreover, they " predict this to continue to worsen with the re-opening of the Student Life building, as more sources and types of waste will enter the building's overall waste makeup, making it much more difficult for students to correctly sort, and thus for UBC to reach its waste diversion goals" (Waste, 2018).

The report also suggested that a staggering number of "garbage" items were sorted incorrectly. Interestingly enough, "once re-sorted, this report found that the garbage stream had the worst sorting



of any stream, with only 11.4% (20.8 kg) of the total 125.75 kg correctly sorted. 65% of the garbage stream's weight was instead missorted compost," (Waste, 2018).

*Figure 1.* The garbage stream is proportionally much larger and missorted. Source: UBC Common Energy Report.

These findings

underscore the importance of addressing waste management issues on campus. And although traffic levels in MASS are significantly lower than traffic volume in the NEST, our observations and meetings with the AUS revealed similar waste management issues. Beyond the current similarities, it is important to remember that the Faculty of Arts student body will be moving into a new and larger arts student space in the coming years. Meaning, the student space is likely to experience similar volumes of waste akin to the NEST. More importantly, this issue also presents an opportunity to practice enhancing waste management habits, with intentions to export this decorum to the new building. Our team hopes that the recommendations we provide will further entrench the AUS' reputation as environmentally-conscious organization both in MASS and the new building.



*Figure 2.* Proportional representation of waste streams after sorting by UBC Common Energy. Source: UBC Common Energy.

### B. <u>Defining the Problem</u>

With the background information provided, we invite the reader to review the information below regarding our problem definition. This information has been used throughout our project to guide our recommendations.

### I. <u>Framing the Problem</u>

Waste management in the current Meekison Arts Students' Space (MASS) is ineffective. The small garbage bins in the space overflow quickly, and the overall lack of cleanliness creates an unsustainable and wasteful environment. This unwelcoming space limits the presence of students in MASS.

### Client: AUS

### II. Identifying Stakeholders & Clients

Our client is AUS. We have identified the following stakeholders:

- Student body (students who come into the space)
- Student associations
- SEEDS
- Building Supervisor / Maintenance crew
- Department
- UBC

### III. Identify social, sustainable and political consequences

- **1. Political Consequences**: Sustainability is a key concern for UBC. In such, making the space more sustainable would align AUS with UBC's vision.
- **2.** Sustainable consequences: By address the issue of waste in MASS, the AUS would be contributing to UBC's 20-Year Sustainability Strategy.
- **3.** Social consequences: A better management of the waste in MASS could inspire/entrench better management habits for new the building. This cultural shift in waste management could make AUS, the

largest student association on campus, a model of sustainable waste management for the other faculties and UBC at large.

# METHODOLOGY AND DESCRIPTION OF POLICY DESIGN

To test our intuition, we distributed surveys to students, interviews with members of the AUS executive team, and a Criteria Alternative Matrix (CAM).

### A. Data Collection

Considering the lack of data available on waste management in MASS, our team constructed surveys and facilitated interviews with AUS staff. Drawing on questions specific to waste management, the survey was distributed to 30 students in MASS of which 25 responded. We also shared our survey via an online link by AUS staff, which was filled out by 3 respondents. In terms of interviews, our team asked a similar set of questions to the executives. The intent was to understand waste issues in MASS from an organizational standpoint. The interviews were recorded and were designed to last anywhere from 2-5 minutes. For your reference, the survey, the video footage, as well as the interview questions can be found in the appendix.

### B. <u>Criteria Alternative Matrix</u>

Following the problem definition and data collection phases, our team conducted a criteria alternative matrix (CAM) to weigh the client's priorities and potential solutions (view figure 3).

- Our CAM outlined seven client priorities, including hygiene, student traffic, effective sorting, improved ambiance, budget, increased waste management awareness, and solution feasibility.
- The criteria selection was derived from our conversations with the AUS team, from our observations of the space, and from the survey results.
- Each criteria has been weighted according to the client's priority.
- Several alternatives were also suggested by our team for cross-reference with the criteria. The alternatives include, improving the trash bins, an awareness campaign, an engagement competition, a cleaning initiative, and an e-waste disposal program.
- For each criterion, we ranked the alternatives by their relative "performance" with respect to the client's weighted priorities. We used a ranking system from 1-5, which provided a relevant justification for each decision our team made. The ranking system is referenced below (figure 3).

Score	Definition	Justification
1	Insufficient	Alternative solution does not adequately meet criteria.
2	Sufficient, but low priority	Alternative meets criteria but is not a priority to the client.
3	Satisfactory	Alternative meets criteria and is a considerable priority to the client.
4	Efficient	Alternative adequately meets criteria and is an important priority to the client.
5	Exemplary	Alternative exceeds criteria expectations and is a very important priority to the client.

Figure 3. CAM ranking system.

Based on our assessment of the client's priorities, the solutions available and our CAM, our team found that a binary approach—an awareness campaign in combination with improved sorting bins—would be the best fit for MASS. We opted for a combined approach as a result of the relatively close ranking between improved bins and awareness campaigns, respectively 4.2/5 and 4.45/5. These findings were also consistent with the policies from the aforementioned NEST study.

		ALTERNATIVES										
Criteria	Weight	Improved Bins		Awareness Campaign		Engaging Competition		Cleaning Initiative		E-Waste		
		Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight	
Hygiene	10%	5	0.5	4	0.4	2	0.2	4	0.4	1	0.1	
Effective Garbaging	30%	5	1.5	5	1.5	4	1.2	3.5	1.05	2	0.6	
Improved Ambiance	5%	1	0.05	2	0.1	5	0.25	5	0.25	2.5	0.125	
Increased Awareness	10%	5	0.5	5	0.5	5	0.5	4	0.	4	0.4	
Budget	20%	3	0.6	4	0.8	3	0.6	4	0.8	5	1	
Policy Feasibility	20%	5	1	5	1	3	0.6	2	0.4	4	0.8	
Increased Traffic	5%	1	0.05	3	0.15	4	0.2	2	0.1	4	0.2	
TOTAL SCORE	100%	4	.2	4	4.45		1.55	3.4		3.225		
RANK		3	2		1		3		4		5	



### C. <u>Constraints, Consequences, and Potential Beneficiaries</u>

Throughout our problem identification and research, we identified key stakeholders, consequences, and constraints. This section provides a breakdown these considerations.

### **Constraints**

- **Budget:** A limited budget of \$1,000-\$2,000 may be constricting, specifically in regard to purchasing new sorting bins.
- Internal AUS politics: All AUS members may not be aligned regarding waste management requirements.
- **Time:** Elected members of the AUS may not have enough time set aside in office to ensure adequate implementation of our proposed solution.

### Consequences

- Solution sufficiently aligns with AUS sustainability goals and will differentiate AUS as an environmental leader on campus.
- Promote a cultural shift regarding waste management practices with the AUS and the students who use MASS.
- Effect of solution on traffic: Policy recommendation may not increase traffic in MASS. Building location is not highly visible to students outside the Faculty of Arts, and an additional project may be worthwhile to pursue.

### **Beneficiaries**

AUS members

- Students using MASS
- Custodial staff and UBC sustainability management team

# RESULTS

Our team believes that the best and most sustainable solutions incorporate a top-down, bottom-up approach. As such, our results include data from interviews with AUS staff members, as well as data collected from survey distributions amongst MASS users. The results from both the surveys and the interviews are outlined in the following section.

### A. <u>Key Takeaways from Surveys</u>

\*An in-depth report on the survey results has been included in the appendix.

- The majority of people use MASS less than five times a week, and the space is used mostly to study and eat.
- The majority of respondents are not clear on what waste management entails. In fact, 68% of respondents answered "all of the above" when asked what they think waste management includes. Indicating there is a limited understanding of the problem.
- Interestingly enough, most people stated that it was relatively easy to dispose of waste.
- When asked if there are any potential barriers to disposing of waste efficiently, the majority of respondents stated that there are not enough bins and that the bins are too small. There were also concerns regarding the location of bins in MASS, as well as the sorting structure. Figure 5 illustrates the respondents' answers.
- When it comes to explanatory signage, the majority of respondents said the signage was sufficient. However, considering the lack of clarity around waste management, there may be issues with communication.
- Virtually all of the respondents stated that they don't know what e-waste is. However, once e-waste was explained, 100% of respondents said that if there was a location on campus to dispose of laptops, cell-phones, and other sources of electronic waste, they would take advantage of this service.
- Majority of people think that e-waste disposal is a great idea, and they also believe that the level of cleanliness in the space needs to be improved.
- Directly behind space cleanliness and an e-waste disposal program, respondents indicated that better sorting bins and clear signage would improve waste management in MASS.



Figure 5. 29% of respondents indicated that there are not enough bins in MASS.

### **B. Key Takeaways from Interviews**

\*The interview footage has been included in the appendix.

- Students are not sorting waste appropriately.
- The lack of traffic through MASS, and the overall use of the space, has declined. The space could use some work and proper waste management may help.
- AUS President believes greater awareness regarding waste management is needed. There is still a disconnect between students and the necessity of properly sorting waste, even amongst fourth-year students.
- Some believe the system is fine, the issue predominantly lies in the behavioural psychology of students.
- There is some divergence in opinion when it comes to overall thoughts on sustainability; some AUS members believe they are on the right track in regard to sustainability measures, while others do not believe they are doing nearly enough to promote effective waste management and sustainability.
- Lack of sustainability measures contributes to the way students treat the Arts Student Space. Other than
  effective waste management, AUS members agree that brightening and cleaning up the space would
  promote use.
- Environmental awareness program is an idea the AUS members were excited about exploring.

# **IMPLEMENTATION AND POLICY EVALUATION**

Based on our extensive research, our team recommends the implementation of a multidisciplinary policy that incorporates an educational component, as well as improved waste infrastructure. This policy will contribute to the development of sustainable waste management practices in MASS, making the student space a more inviting and environmentally-conscious space for guests to relax and study. It is our hope that through such fundamental changes, traffic volumes to MASS will improve. Regardless, improved practices will likely carryover into the new Arts Students' Space. Long-term and effective waste management practices within the AUS organization will help to establish the AUS as a leader in sustainability development on campus. The following section will summarize our recommended project proposal, including policy outcomes and indicators, data analysis, and policy evaluation.

### A. <u>Two-Pronged Approach Continued</u>

Elaborating on the point made above, our decision to draft and implement a multidisciplinary policy that includes an educational component, as well as improved waste infrastructure, is based on our research in this field.

The UBC Common Energy report cited a significant lack of transparency and awareness amongst students in NEST, suggesting a correlation to the amount of waste inappropriately sorted last year (Waste, 2018).

"We hope UBC will begin to try and change the narrative around waste in an attempt to destignatize waste materials and expand the horizons of what is possible with waste materials," stated the report. "Carrying over from last year, we call for UBC to rethink the signage and communications as to what goes in the garbage stream, as this report found that a shocking 87% of the garbage stream was incorrectly sorted."

Moreover, the report called for the re-installment of the 3D "waste boxes." However, they also cited a need for more detailed modifications, to ensure students know exactly which waste item goes in which bin.

Reference from the Common Energy report aside, our research on UBC waste management practices more broadly reiterates the immediate need for a comprehensive solution to the problem in MASS. In fact, the Zero Waste Action Plan, outlined by Campus and Community Planning, is aiming for an 80% waste diversion rate in 2020 (Zero, 2019). Such a lofty goal will not be met unless large organizations, such as the AUS, commit to sound waste management policies.

The people behind the Zero Waste Action Plan are leveraging similar tactics by combining the power of education with the use of appropriate disposal mechanisms. According to the Action Plan, 700 multi-stream recycling stations have been rolled out, they have increased composting by 400 tonnes per year, and they have created a Zero "Waste Squad" volunteer program that is aimed at engaging students on campus with the importance of proper waste management (Zero, 2019).

In sum, we are of the mindset that our multifaceted solution will encourage a level of effective waste management congruent with similar practices being deployed across campus. Specifically, effective policy implementation in the MASS student centre will help the AUS reach their "zero waste" goal, which aligns with the goals of UBC more generally. Through campus-wide unity, not only will waste management push its way onto the university's agenda, but stronger and more effective practices will continue to develop.

### **B.** Cost Benefit Analysis

Equipped with our proposed solution and knowledge from secondary and primary research, our team moved into the cost-benefit-analysis portion of policy development. In this phase, we assessed the proposed solution in conjunction with the budget outlined by the AUS organization. To implement our two-pronged approach, the AUS allotted a \$1,000 budget, with room for upward movement to \$2,000, should the solution dictate reasonable grounds for additional funds.

Based on our analysis, the budget outlined is sufficient to implement both policy alternatives recommended in this report, the waste management awareness campaign and the use of improved sorting bins. Through the implementation of our two-pronged solution, project impact will be maximized. Proposed costs and benefits for each solution are outlined below. For a more detailed breakdown of relative costs and benefits, please see appendix 6.

Policy	Costs	Benefits
Awareness Campaign	<ul> <li>Infographic/poster design, \$200</li> <li>Poster printing and set-up, \$30</li> </ul>	<ul> <li>Infographics and posters shown to reduce rate of inappropriate sorting by 10%.</li> <li>Increased aesthetic appeal of MASS.</li> <li>Awareness will build environmental connection with students.</li> <li>Establishes AUS as leader in environmental space</li> </ul>
Improved Sorting Bins	<ul> <li>New sorting bin, \$550</li> <li>3D Model Box, \$240</li> </ul>	<ul> <li>Promotes clean, organized study space for students.</li> <li>Improved accessibility to sorting bins.</li> <li>Improved sorting habits.</li> <li>Improved sense of ownership and pride of Arts Student Space.</li> <li>Reduces waste overflow.</li> </ul>

### **Total Project Costs: \$1,020**

## **POLICY RECOMMENDATIONS**

### A. Awareness Campaign

Based on our scoring mechanism outlined in the Criteria Alternatives Matrix (CAM), the awareness campaign is the best solution available to tackle waste management in MASS. Initial awareness campaign measures include the creation and distribution of infographics and posters.

To efficiently implement this policy, our team recommends leveraging existing UBC resources. For example, we suggest tapping into the talented design and arts students to create informative and relevant waste management posters. Utilizing this resource will ensure costs are mitigated, as well as foster a stronger UBC community. The figures below are examples we designed to illustrate the style of infographic we believe would be most effective.



Figure 6. Illustrative and playful ideas for awareness campaign.

We propose displaying a variety of different and creative posters in and around MASS. Preferred locations include community bulletin boards, above or around sorting bins, in the AUS office space, near the microwave, in the kitchen space, and near vending machines. Outside of the MASS space, we recommend posting infographics throughout the Buchanan building, and in relevant UBC spaces more broadly. Such spaces include other faculty student spaces and campus libraries. We believe mass distribution of AUS waste management posters will aid in fostering more sustainable habits amongst the student body and promote the AUS organization as an environmental leader. However, it is imperative that the AUS organization gain permission to post infographics prior to implementation. If permission is granted, we believe this project will facilitate strong faculty connections on campus. To ensure variety and deployment saturation, our team recommends the creation of three different styles of posters and an initial printing count of 30. Additional printing is contingent on the AUS receiving posting permission from relevant faculties and organizations on campus. Ultimately, we advise that the awareness poster be centered around inclusion, equity, and diversity.

#### B. Improved Bin

Creating awareness will only be effective if students have access to improved waste management infrastructure. In fact, according to our research, lack of efficient sorting mechanisms constitutes the largest barrier to disposing of waste properly in MASS. In such, we suggest the implementation of *Type A Bins*, larger brings (figure 8) in order to accommodate the volume of waste produced in MASS, reduce the chance of overflowing trash, lower the pick-up turnover, enhance the aesthetic of the building while also increasing the bins' visibility.

To ensure students fully understand the sorting streams, our team recommends the use of additional communication measures, such as 3D models. The idea would consist of commonly used waste items from each stream (garbage, compost, recycling, and paper) displayed in a clear container above or in direct sight of the

sorting bin. This illustrative communication mechanism has been displayed in NEST, and according to Associate Vice President, Sustainability, Michelle Marcus, it has been very effective in managing student sorting habits.



Figure 7. Example of the proposed new sorting bin for MASS.

Although much smaller in size, we recommend keeping the bins that are currently in MASS (*Type D*) as per figure 8 bins, in addition to the implementation of a bigger and more durable bin. Our recommendation would be to use both sets of bins in the interim. Once the AUS moves into their new space, acquirement of a second *Type A* (*listed above in figure 7*) bin could be explored. Given the size of these bins, we propose a reallocation of



Figure 8. Type D bins are smaller and the signage is less clear.

*Type D* bins that are currently in the MASS space as per figures 9 and 10; and place the *Type As* by the white brick fall behind the kitchenette to increase visibility and enhance aesthetics (figure 11).



We hold that the implementation of improved bins will outweigh the potential social costs. As we have outlined in our report, our assumptions are backed by extensive primary and secondary research. Furthermore, being that ineffective sorting habits in MASS are a key concern, we suggest focusing policies that *correct* student behaviour first and foremost. The implementation of an improved sorting bin will aid in this regard. Indeed, through these mechanisms, the MASS space will not only be able to manage large amounts of waste but also enhance students' sorting abilities. It is our view that improving the bins in MASS is an adequate way of developing students' sorting decorum so that they carry these new habits into the new building once it is completed. Moreover, given that the new building will be larger than MASS, the AUS should expect larger amounts of waste. As such, these larger bins would also be ideal for the new space.

### **LIMITATIONS**

We faced key limitations throughout the project, particularly in terms of time, access to information, and survey response. First, we were constrained by the fact that we only had one semester to complete this project. More time would have given us the ability to design and test a wider range of experiments to positively influence student sorting behaviours. Beyond our time constraints, accessing secondary research through either individuals or literature about on-campus waste management was not an easy task. Although Ms. Michelle Marcus' guidance allowed us access the Common Energy UBC's Waste Audit report, additional resources were not easy to come by. Finally, we were able to survey only 24 students with respects to the MASS space. Given the size of the Arts and Science student body, and the amount of students who use MASS, our sample size may not be large enough to fully grasp the diversity of perspectives relative to waste in MASS.

### **RECOMMENDATIONS FOR FUTURE RESEARCH**

The aforementioned limitations hint at knowledge gaps, which future research could use to enhance the recommendations we provided. For instance, there is a need for further behavioural experimentations. That is, with more time, future researchers could design an experiment through which "before and after" comparisons can be made regarding policy implementation. Moreover, the surveys responses and secondary research provided show evidence of a knowledge gap in terms of sorting. We believe there is an opportunity for future researchers to dive deeper into the reasons that impede appropriate sorting. Finally, the survey also alluded to the fact that some students may not consider sorting to a priority. Future research should assess ways through which policies can nudge these individuals in the right direction.

#### **KNOWLEDGE DISSEMINATION**

1.We had an opportunity to present our report on April 2<sup>nd</sup> to representatives from the Arts Undergraduate Society, the SEEDS Sustainability Program and our colleagues. In our presentation we outlined the nature of our project, described the policy problem, research methodology, analysis, limitations and touched upon our recommendations.

2. 'The Pub' is a media collective initiative by the students of UBC's Master of Public Policy and Global Affairs Program. It is a platform where students discuss and critically analyze a number of issues, ranging from sustainability to international development, and engage audiences from Canada and abroad. We prepared a press release for the latest blog post on The Pub. A link to the blog post and our press release can be found <u>here</u>.

3.We are also in talks with *The Ubyssey*, UBC's official student-run newspaper. The editors do seem interested in the work we have done and seem keen to potentially feature it in an upcoming edition of the

newspaper. We have drafted two press releases, one with a domestic focus and one with an international angle, and are planning on distributing the press releases around UBC, Vancouver, and to some media outlets in South East Asia, where some of our team members have strong connections. The press releases can be reviewed in the appendix.

## **CONCLUDING REMARKS**

We believe that through a combination of improved bins and awareness campaigns, the issue of waste management at the MASS student space can be adequately addressed. The solutions we propose are aimed at correcting the behaviour of the students. Our solution is the most concrete way of ensuring sustained and better waste disposal habits. We are of the opinion that implementing the above recommendations, would not only resolve the problem of effective waste management in the short run, but can also be adopted in the long run, as the ASC relocates. We have faith that the AUS will succeed in its quest to make the ASC and other student spaces environmentally sustainable and student friendly and we look forward to working with them in the future.

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# APPENDIX

## <u>Appendix 1</u> <u>Project Plan</u>

# PHASE 1

## **Project Set-Up and Problem Definition**

**Objective:** establish client priorities, effectively define problem, and map out sequential problem-solving steps.

### Step 1—Preliminary client meeting

- January 24<sup>th</sup>
- **Goal:** establish primary client concerns
- Allocation: all group members in attendance
- Deliverable: meeting minutes outlining key-takeaways
- Step 2—Preliminary brainstorming session
  - January 29<sup>th</sup>
  - Goal: define and frame problem
  - Allocation: all group members in attendance; Cassandra to create project plan; Sanmini to create problem definition/framing
  - **Deliverable:** Project plan and problem definition/framing
- Step 3—Second client meeting check-in
  - February 14<sup>th</sup>
  - Goal: present problem definition to client, ensuring project synergy before moving forward
  - Allocation: all group members in attendance; AUS vice-president also in attendance
  - **Deliverable**: meeting minutes outlining key-takeaways
- Step 4—Ethics training
  - February 28<sup>th</sup>
  - Goal: complete required ethics course
  - Allocation: all group members to complete respective training course
  - Deliverable: training certificate from all group members

# PHASE 2

### **Preliminary Research and Data Collection**

**Objective:** acquire primary and secondary research, as a means of adequately understanding the problem.

Step 1—Acquire and synthesize secondary research on effective waste management (published journals, interviews with relevant UBC professionals, general research)

- February 4<sup>th</sup>-February 22<sup>nd</sup>
- Goal: gain insight on effective waste management tools
- Allocation: Cassandra, Melisha, and Nikki to find and summarize key research, Sanmini to synthesize key-takeaways from research
- **Deliverable**: synthesized package of appropriate research to be used as reference throughout project creation and implementation

• Notes: interviews with professionals include: Michelle Marcus, Associate Vice President, Sustainability AMS Student Society of UBC Vancouver; David Gill, Program and Policy Planner, UBC Campus and Community Planning, Vancouver

Step 2—Acquire primary research (observational data)

- January 31<sup>st</sup>-February 28<sup>th</sup> (total of five observational gathering sessions in relevant spaces. Three held in MASS, two held in NEST, one held in Engineering Student Centre)
- **Goal**: gain insight on specific waste management issues in MASS, observe student behaviour regarding appropriate waste management; seek insight on effective waste management solutions
- Allocation: all members to participate, cross-reference notes, and synthesize information
- **Deliverable**: synthesized package of observational data to help guide project creation and implementation

Step 3—Acquire primary research (surveys)

- February 25<sup>th</sup>-March 11<sup>th</sup> (creation of survey February 25<sup>th</sup>; distribution of survey March 4<sup>th</sup>-11<sup>th</sup>; synthesise of data March 14<sup>th</sup>)
- Goal: gain insight on specific waste management issues in MASS from student perspective
- Allocation: Melisha to create survey; Melisha and Sanmini to distribute surveys and synthesize data
- Deliverable: professional survey for distribution and synthesized package of data

Step 4—Acquire primary research (interviews)

- March 4<sup>th</sup>-March 17<sup>th</sup> (video interviews with AUS staff members, pending engagement from association)
- Goal: gain insight on specific waste management issues in MASS from organizational perspective
- Allocation: Sanmini to create interview questions; Nikki and Cassandra to host interview sessions and synthesize data
- Deliverable: professional video footage and synthesized package of data

# PHASE 3

## **Data Analysis and Problem Solving**

**Objective**: Analyze relevant data and determine the most effective solution(s)

Step 1—Determine the most effective solution via the Criteria Alternatives Matrix (CAM)

- March 5<sup>th</sup>
- Goal: weigh alternatives against client priorities to determine the most effective solution
- Allocation: all group members to draft CAM, Nikki to edit and complete CAM
- Deliverable: CAM and relevant justification

Step 2-Midterm check-in with client

- March 21<sup>st</sup>
- **Goal**: present proposed solution and relevant research to client to ensure project synergy before conducting cost-benefit analysis and drafting project proposal
- Allocation: all group members to attend; AUS representatives to also attend
- **Deliverable**: meeting minutes outlining key-takeaways

Step 3—Conduct cost-benefit analysis

- March 25<sup>th</sup>
- **Goal**: analysis potential solution derived from CAM, as a means of determining project feasibility based on relevant costs and benefits
- Allocation: Sanmini and Cassandra to synthesize relevant data; Nikki and Melisha to draft CBA
- Deliverable: professional CBA and relevant justification for most effective solution

# PHASE 4

### **Project Proposal, Evaluation, and Communication**

Objective: present project to client and conduct project evaluation

### Step 1—Draft project proposal

- March 27<sup>th</sup>
- **Goal**: provide policy recommendations and package relevant information in professional and aesthetically pleasing report
- Allocation:
  - Title page, executive summary, client overview (Cassandra)
  - Definition of policy problem (Sanmini)
  - Description of Policy Design (Melisha)
  - o Implementation and Policy evaluation (Nikki, Sanmini)
  - Policy Recommendations and areas of future research (Melisha)
  - Bibliography (Melisha and Cassandra)
  - Editing (Cassandra)
- Deliverable: client-facing report of proposed project to solve their respective problem.

Step 2-Evaluation of project proposal

- March 27<sup>th</sup>
- **Goal:** provide evaluation of project, including future areas of research and limitations; to be included in final report.
- Allocation: Policy recommendations and areas of future research; same as above (Melisha)
- Deliverable: evaluation section to be included in final report.

### Step 3—Communication of project

- April 2<sup>nd</sup>
- **Goal**: effectively communicate proposed policy recommendations to client and draft knowledge dissemination plan.
- Allocation: all group members to participate in creating client presentation; for knowledge dissemination plan, see below.
  - Creation of video from synthesized data; to be used in blog (Nikki)
  - Creation of blog to be used for communication purposes (Cassandra)
  - Dissemination/public relations plan (Sanmini and Melisha)
- **Deliverable**: visual presentation on policy recommendations and key takeaways from project creation; knowledge dissemination plan (including blog content).

Step 4—Submit final report to client

- April 5<sup>th</sup>
- **Goal**: conduct final edits and include any relevant feedback from communication phase to final report; conduct individual and group assessment; obtain client assessment.
- Allocation: all members to contribute
- Deliverable: final report for submission

### **Miscellaneous Items**

- Weekly group meetings are held on Tuesdays at 11:45 a.m.
- Tentative meeting scheduled with advisor, Chad Rickaby, Thursday March 7<sup>th</sup>.



\*Please note project is measured in "work days" to accurately represent deliverable due dates and timelines; however, they are not indicative of number of hours spent on deliverable in any given day.

# Waste Management for AUS

TASK NAME	START DATE	END DATE	START ON DAY*	DURATION* (WORK DAYS)	TEAM MEMBER	PERCENT COMPLET
oject Set-Up and Problem Definition						
Preliminary Client Meeting	1/24	1/24	0	1	All Members	100%
Preliminary Brainstorming Session	1/29	1-29	5	1	All Members	100%
Project Plan	1/30	3/5	6	35	Cassandra	100%
Problem Definition/Framing	1/30	2/13	6	15	Sanmini	100%
Second Client Check-in	2/14	2/14	21	1	All Members	100%
Ethics Training	1/30	2/28	6	30	All Members	100%
eliminary Research and Data Collection						
Secondary Research (acquire)	2/4	2/22	11	19	Cass/Mel/Nikki	80%
Secondary Research (synthesize)	2/20	2/23	27	4	Sanmini	80%
Primary Research (observational)	1/31	2/28	7	29	All Members	100%
Primary Research (surveys)	2/25	3/11	32	15	All Members	40%
Survey Creation	2/25	2/25	32	1	Melisha	100%
Survey Analysis	3/14	3/14	49	1	San/Mel	0%
Primary Research (Interviews)	3/4	3/17	39	14	Cass/Nikki	40%
ta Analysis and Problem Solving						
Criteria Alternatives Matrix (CAM)	2/20	3/5	27	14	Nikki	85%
Midterm Check-In with Client	3/21	3/21	56	1	All Members	10%
Cost-Benefit Analysis (CBA)	3/19	3/25	54	7	Nikki/Mel	30%
oject Proposal, Evaluation, and Communica	tion					
Draft project proposal	2/14	3/27	21	42	All Members	40%
Title page, executive summary, client overview	3/5	3/27	40	23	Cassandra	20%
Definition of Policy Problem	2/13	3/27	20	43	Sanmini	70%
Description of Policy Design	3/5	3/27	40	23	Melisha	20%
Implementation and Policy Evaluation	3/5	3/27	40	23	Nikki/San	10%
Policy Recommendations and Future Research	3/5	3/27	40	23	Melisha	10%
Bibliography	2/4	3/27	11	52	Cass/Mel	30%
Draft Edits	3/25	4/4	60	11	Cassandra	0%
Project Presentation	3/25	4/2	60	9	All Members	10%
Final Report Submission	4/5	4/5	71	1	All Members	0%

## <u>Appendix 2</u> <u>Problem Definition</u>

### Framing the Problem

Waste management in the current Meekison Arts Students' Space (MASS) is ineffective. The small garbage bins in the space overflow quickly, and the overall lack of cleanliness creates an unsustainable and wasteful environment. This unwelcoming space limits the presence of students in MASS.

### Client: AUS

### III. Identifying Stakeholders & Clients

Our client is AUS. We have identified the following stakeholders:

- Student body (students who come into the space)
- Student associations
- SEEDS
- Building Supervisor / Maintenance crew
- Department
- UBC

### IV. Identify social, sustainable and political consequences

- **4. Political Consequences**: Sustainability is a key concern for UBC. In such, making the space more sustainable would align AUS with UBC's vision.
- **5.** Sustainable consequences: By address the issue of waste in MASS, the AUS would be contributing to UBC's 20-Year Sustainability Strategy.
- 6. Social consequences: A better management of the waste in MASS could inspire/entrench better management habits for new the building. This cultural shift in waste management could make AUS, the largest student association on campus, a model of sustainable waste management for the other faculties and UBC at large.

### <u>Appendix 3</u> <u>Criteria Alternative Matrix (CAM)</u>

## CAM Analysis for "MASS Behavioural Waste" Project

## BACKGROUND

This document provides an analysis of our team's project plan to implement a policy regarding behavioural waste in the MASS student space. We have used a Criteria Alternatives Matrix (CAM) to determine the best solution for implementation.

## **CRITERIA SELECTION AND WEIGHING**

We have identified seven different criteria in this matrix, and they are listed below.

- 1. **Hygiene**: Based on our observations while visiting MASS, our team noticed overall hygiene could be improved. Waste was littered on the floor and on the tables. While hygiene is important and may attract additional visitors to MASS, it is not a priority to the client, and it is not the primary target for our policy. **Weight Assigned: 10%**
- 2. Effective Garbage Sorting: Based on our research, the MASS space will improve should effective garbage sorting be implemented. We have attributed the highest weight to this criterion, as it is our main policy objective. Weight Assigned: 30%
- 3. **Improved Ambiance:** Based on the survey we conducted in MASS, most students feel the ambiance could be improved. Moreover, based on our observations, we felt as though the ambiance was not that inviting for students to use the space primarily based on cleanliness. We hope that the outlined alternatives could address this issue. As such, we gave a minimal weight to this criterion simply because we believe that a great ambiance occurs due to a clean and better managed space. **Weight Assigned: 5%**
- 4. Increase in Awareness: Awareness is crucial in measuring the success of our policy, and it may encourage students to become more aware about the importance of proper waste management. However, awareness in this context is the long-term aim of our policy, hence the initial weighting is minimal. Weight Assigned: 10%
- 5. **Budget:** Budget is always be a main consideration in every policy, including this one. Without budget, a policy can't be executed. **Weight Assigned: 20%**
- 6. **Feasibility:** Feasibility measures the probability the alternatives can be implemented successfully. Therefore, a rather big weight is given to this criterion. **Weight Assigned: 20%**
- 7. **Increase in Traffic:** According the student association, low traffic is another major issue faced by MASS. While some of the alternatives could address this issue, we applied a small weight because it mostly lies outside of our project's main objective. **Weight Assigned: 5%**

## **ALTERNATIVE POLICIES**

- 1. Improving the Trash Bins: This policy alternative includes things like upgrading the size of the bins, putting pictures or boxes that explain which waste goes into which bins, encouraging visitors to pick up trash more frequently, and increase the amount and visibility of trash bins. It is hoped that by improving the trash management system, we can encourage the students, or any people who use the space, to sort their waste more properly.
- 2. Awareness Campaign on Waste Management: Another alternative policy that we are considering is to raise user awareness regarding waste management in MASS. Awareness campaigns may include the use of flyers, pamphlets, posters, and other multimedia elements.
- **3. Engagement Competition:** We are also considering a waste management competition to encourage greater awareness among visitors in MASS. The competition may take several different shapes, including the use of photos and videos, or even a social media competition. While this alternative may be more costly, it may attract a greater level of participation among MASS visitors.

- **4.** Cleaning Initiative: We have also considered a cleaning initiative, as a means fostering a sense of belonging and pride for MASS visitors. The initiative may involve posters and guidelines that encourage visitors to clean up after themselves and ensure an organized student space.
- **5. E-Waste:** Lastly, our team is considering an e-waste program, which will encourage greater awareness around sound waste management and will likely attract more visitors to MASS. The program will allow students to properly dispose of their old electronic items, such as laptops, phones, tablets, etc.

### **SELECTION METHOD**

- For each criterion, we ranked the alternatives by their relative "performance" in respect to the criteria.
- After ranking each alternative, we multiply each score with the respective weight.
- Lastly, the sum of each alternative is determined. The alternative with the highest score would technically be the best solution to pursue.
- The alternatives will be ranked on a scale from 1 to 5. The scoring criteria are as follows:

Score	Definition	Justification
1	Insufficient	Alternative solution does not adequately meet criteria.
2	Sufficient, but low priority	Alternative meets criteria but is not a priority to the client.
3	Satisfactory	Alternative meets criteria and is a considerable priority to the client.
4	Efficient	Alternative adequately meets criteria and is an important priority to the client.
5	Exemplary	Alternative exceeds criteria expectations and is a very important priority to the client.

### CRITERIA ALTERNATIVE MATRIX POLICY FOR MASS WASTE MANAGEMENT (AUS)

			ALTERNATIVES								
Criteria	Weight	Improved Bins		Awareness Campaign		Engaging Competition		Cleaning Initiative		E-Waste	
		Scr	Weight	Scr	Weight	Scr	Weight	Scr	Weight	Scr	Weight
Hygiene	10%	5	0.5	4	0.4	2	0.2	4	0.4	1	0.1
Effective Garbaging	30%	5	1.5	5	1.5	4	1.2	3.5	1.05	2	0.6
Improved Ambiance	5%	1	0.05	2	0.1	5	0.25	5	0.25	2.5	0.125
Increased Awareness	10%	5	0.5	5	0.5	5	0.5	4	0.4	4	0.4
Budget	20%	3	0.6	4	0.8	3	0.6	4	0.8	5	1
Policy Feasibility	20%	5	1	5	1	3	0.6	2	0.4	4	0.8
Increased Traffic	5%	1	0.05	3	0.15	4	0.2	2	0.1	4	0.2
TOTAL SCORE	100%		4.2		4.45		3.55		3.4	3.225	
RANK			2		1		3		4		5

## <u>Appendix 4</u> <u>AUS Executive Interviews</u>

### **BEHAVIOURAL WASTE INTERVIEW**

The questions outlined below are to be used for interview purposes with AUS staff. The purpose of the interviews is to gain insight on specific waste management issues from an AUS organizational perspective. The interviews will be recorded, with synthesized information used for research purposes. All interviewees will be asked the same set of questions, and each session will run for approximately 10-15 minutes.

- 1. Please introduce yourself and briefly explain your position within AUS.
- 2. In your opinion, what are some of the barriers to efficient waste management in MASS?
- 3. Do you think the current waste management mechanisms are efficient?
- 4. To your knowledge, what has been done to manage waste in MASS?
- 5. In your opinion, what are potential solutions to improving waste management in MASS?
- 6. Do you believe inefficient waste management deters student traffic in MASS?
- 7. Outside of work hours, do you spend time in MASS, why or why not?

Interview footage with AUS executives.

### **BEHAVIOURAL WASTE SURVEY**

Hi there! We are 4 Masters students working on a project to improve waste management and the overall appearance of your MASS space. We figured that we could not do a good job without asking your opinion so we created this survey. Our goal is to make this space more enjoyable and sustainable for you. The survey is completely anonymous and the answers you provide will only be used within the context of the project.

Thank you so much for your participation! :)

### **Department/School:**



### Year of Study:

#### Age:



- õ
- Less than 5 times a week
- 5-10 times a week
- Ο
- 10 20 times a week
- С.

I basically live there

## You generally use MASS to... (select all the answers that apply)

0	Eat
0	Study
0	Group work
0	Unwind
0	All of the above
C	Others (Please specify)

## What does waste management mean to you? (select all the answers that apply)

0	Composting
0	Recycling
0	Zero waste
0	All of the above
0	Others (please specify)

How easy or difficult is it for you to dispose of waste in MASS?

$\odot$	
	Very Easy

- C Moderately Easy
- Ó
  - Neither Easy nor Difficult
- C Moderately Difficult
- $\odot$
- Very Difficult

# What are some potential barriers to disposing of waste appropriately? (select all the answers that apply)

- $\odot$
- No clear signage

0	Garbage bins are too small
0	There are not enough bins
0	I don't feel like I want to
0	There are other issue more important than just climate change
0	Others (Please specify)
Is th	ere any explanatory signage to help you dispose of waste in MASS? Yes

No No

 $\odot$ 

I don't remember

Do you know what e-waste is?

If yes, please explain

Do you recycle your e-waste?

C Yes C No

If there were a place on campus where you could dispose of your e-waste, would you?

0

 $\odot$ 

No

Yes

What would be the best solution to improve waste management in MASS? Please score EACH option in order of desirability: 1 being least desirable, 5 being most desirable.

Improved sorting bins E-waste disposal bin Infographics on waste management Improved cleanliness Community Participation

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

What suggestions do you have to improve waste management in MASS?

### **Cost Benefit Analysis**

### **Executive Summary**

Based on our analysis, we propose a two-pronged solution that includes an awareness campaign on waste management and the implementation of improved sorting bins. The budget is sufficient to enact both policy alternatives, and through implementation of both alternatives, project impact will be maximized. For reference, please review the detailed cost-benefit analysis below.

### Awareness Campaign

Based on our scoring mechanism outlined in the Criteria Alternatives Matrix (CAM), the awareness campaign is the best solution available to tackle waste management in MASS. Initial awareness campaign measures include the creation and distribution of infographics and posters. Examples of such posters are listed below. Relative benefits and costs are found at the end of this analysis.

### **Improved Bins**

Creating awareness will only be effective if students have access to improved waste management infrastructure, which is why we have decided to couple the campaign with the implementation of bigger and better sorting bins. In fact, according to our research, lack of efficient sorting mechanisms constitutes the largest barrier to disposing of waste properly in MASS. Installing bigger bins with clear signage will help to accommodate the volume of waste produced in MASS.



### **Cost Benefit Analysis**

A cost-benefit-analysis was used to assess the potential benefits and costs associated with our preferred recommendations. Our assessment of both solutions has been analyzed together, as both alternatives will be implemented as a two-pronged solution.

### **Benefits**

Some identified benefits of our two-pronged solution include:

- The usage of infographics, posters, and other informative materials have been proven to reduce the rate of inappropriate sorting by10%.
- There are also positive externalities that may arise from using informative posters, such as increased aesthetics in MASS, and reduction of waste created by students.
- Awareness campaigns have also been proven to connect the public with their surroundings; increasing knowledge-levels of targeted viewers stimulates long-term commitment to a cause.
- Regarding the larger bins, the main benefits include a more aesthetically-appealing and clean student centre, improved accessibility, and improved sorting habits.

### Costs

Although there are some costs associated with the proposed solution, our two-pronged approach falls well below the allocated budget of \$1,000 to \$2,000. Our proposed solution costs \$1,020. Following evaluation, we would recommend using the remaining budget to extend the project.

- Infographic/poster design: \$25/hour x 8 hours = \$200
- Poster printing and set-up: \$1 x 30 = \$30
- Purchase of new bins: \$550
- 3D model displays:  $60 \times 4 = 240$
- Grand Total = \$1,020
- Budget = \$1,000

## <u>Appendix 7</u> <u>Press Releases</u>

\*\*\*For Immediate Release\*\*\* Monday April 1, 2019

## Arts Undergraduate Society is Turning a New Leaf, and It's Green! AUS Organization at UBC Ramps Up Waste Management Policy in Student Space

The <u>Arts Undergraduate Society</u> (AUS) at the University of British Columbia is joining the fight for a more sustainable future. Working in conjunction with the <u>School of Public Policy and Global Affairs</u> (SPPGA), and the <u>Social Ecological Economic Development Studies</u> (SEEDS) Sustainability Program, the student-led organization will be implementing a number of policies aimed at curbing ineffective waste management in their student space, the Meekison Arts Student Space (MASS).

"Ensuring that we're disposing of our waste effectively is an important component in the overall development of sustainable solutions," said AUS President, Katherine Aquino. "Promoting a more environmentallyconscious campus is all of our responsibility, and our organization is excited to be working alongside other groups at UBC to safeguard our collective future."

In the coming months, AUS will be showcasing an awareness campaign that highlights the importance of sorting waste appropriately. Sharing facts and light-hearted environmental humour, the campaign is designed to coincide with the university's overarching sustainability goals. One primary goal being an <u>80% waste diversion</u> rate by 2020.

The educational component will be combined with the rollout of new and improved sorting bins. The waste sorting bins will include four streams—garbage, organics, recyclables, and paper products—and will be accompanied by clear and descriptive signage.

Other student centres on campus have already experimented with different types of signage, including the use of clear, 3D display boxes that illustrate which types of waste are appropriate for each stream. According to AMS Student Society of UBC Vancouver, these unique displays are a compelling way to encourage appropriate waste sorting amongst students.

"We've had a lot of success with a variety of different communication projects on campus," said Michelle Marcus, Associate Vice President, Sustainability, AMS Student Society of UBC Vancouver. "However, we're always looking for ways to improve our waste sorting practices and our sustainability measures more generally. We're looking forward to seeing how the AUS develops their own policies!"

To tackle their growing battle against waste management in MASS, the AUS has been working with the SPPGA. Leading a research-intensive project, the SPPGA team developed a practical policy scheme that will encourage sound sustainability practices.

"It's clear to see that the AUS organization is passionate about promoting and practicing sustainability," said Cassandra Jeffery, Policy Analyst, SPPGA. "We hope that through the implementation of a comprehensive policy, the practice of effective waste management will be normalized in MASS."

<u>About AUS</u>: The Arts Undergraduate Society of UBC represents 14,000 Faculty of Arts students, providing an assortment of student services and hosting social events for constituents. Their aim is to enhance the undergraduate experience and provide opportunities for student involvement in the UBC/Vancouver arts community.

\*\*\*For Immediate Release\*\*\* Monday April 1, 2019 Vancouver, Canada

### <u>Canadian University is Leading Change in Sustainability Practices</u> Arts Undergraduate Society of UBC Vancouver Ramps Up Waste Management Policy in Student Space

The <u>Arts Undergraduate Society</u> (AUS) at the <u>University of British Columbia</u> is joining the fight for a more sustainable future. Working in conjunction with the <u>School of Public Policy and Global Affairs</u> (SPPGA), and the <u>Social Ecological Economic Development Studies</u> (SEEDS) Sustainability Program, the student-led organization will be implementing a number of policies aimed at curbing ineffective waste management in their student space, the Meekison Arts Student Space (MASS).

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The educational component will be combined with the rollout of new and improved sorting bins. The waste sorting bins will include four streams—garbage, organics, recyclables, and paper products—and will be accompanied by clear and descriptive signage.

A <u>recent report</u> published by <u>Common Energy UBC</u> stated that inappropriate waste disposal has been an ongoing issue on the Vancouver campus for the last two years. Primarily, students have a habit of throwing organic material into the garbage bin, which only inflates the waste diversion rate. Waste diversion rate refers to the amount of trash that avoids the landfill on an annual basis. In 2018, over 60% of garbage was collected, whereas if the garbage was sorted correctly, the rate would have been around 11%. Several recommended solutions in the report included the introduction of interactive signage to help encourage students to throw their waste in the right bin.

"We've had a lot of success with a variety of different communication projects on campus," said Michelle Marcus, Associate Vice President, Sustainability, AMS Student Society of UBC Vancouver. "However, we're always looking for ways to improve our waste sorting practices and our sustainability measures more generally. We're looking forward to seeing how the AUS develops their own policies!"

In noticing this campus-wide issue, the AUS teamed up with the SPPGA to tackle waste management issues in their own student space. Leading a research-intensive project, the SPPGA team developed a practical policy scheme that will encourage sound sustainability practices.

"It's clear to see that the AUS organization is passionate about promoting and practicing sustainability," said Cassandra Jeffery, Policy Analyst, SPPGA. "We hope that through the implementation of a comprehensive policy, the practice of effective waste management will be normalized in MASS." <u>About AUS</u>: The Arts Undergraduate Society of UBC represents 14,000 Faculty of Arts students, providing an assortment of student services and hosting social events for constituents. Their aim is to enhance the undergraduate experience and provide opportunities for student involvement in the UBC/Vancouver arts community.

Media Contact Cassandra Jeffery, SPPGA jefferyccm@gmail.com