

# Contents

1.		Ove	rview	3
2.		Con	text and Background	5
3.		Purp	oose	6
4.		Exis	ting Initiatives	7
	4.	1	Multi-Stream Recycling and Depots	7
	4.	2	4-Stream Recycling Stations	7
	4.	3	Outdoor Event Recycling Stations	8
	4.	4	Deskside Recycling	8
	4.	5	Sustainability Ambassadors	9
	4.	6	Sustainability Co-op.	9
	4.	7	Reusable Office Supplies Exchange	9
	4.	8	Writing Instruments Recycling Collection	10
	4.	9	Reusable Moving Totes	10
	4.	10	Zero Waste Events	10
	4.	11	Bring Your Own Mug Incentive	11
	4.	12	Paper-Use Reduction	11
5.		Whe	ere We Are	12
	5.	1	Preliminary Benchmarking	16
	5.	2	Data Accuracy	16
	5.	3	Information Gaps	17
6.		Targ	gets and Milestones	18
7.		Ove	rall Strategy	19
	7.	1	Sustained communications and engagement plan	19
	7.	2	Improved monitoring	19
	7.	3	Standardize remaining bins and signage	19
	7.	4	Work with Purchasing on vendor responsibility	20
	7.	5	Implement construction waste management program	20
	7.	6	Create recycling infrastructure guidelines	20
8.		Area	as of Opportunity	21

	8.1	Exterior Recycling Stations	21
	8.2	Onsite Composting	21
	8.3	Single Use Plastics	21
	8.4	Waste Audits	21
	8.5	Furniture Reuse Marketplace	22
	8.6	Recycling Wall	22
	8.7	Waste Management Policy	22
9.	. Pre	paration for STARS	23

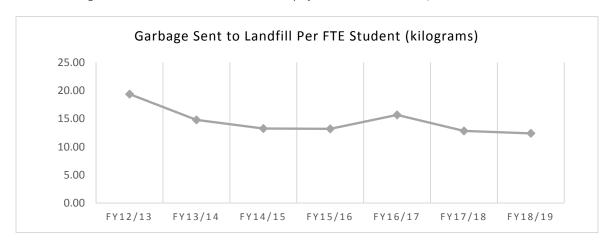
# 1. Overview

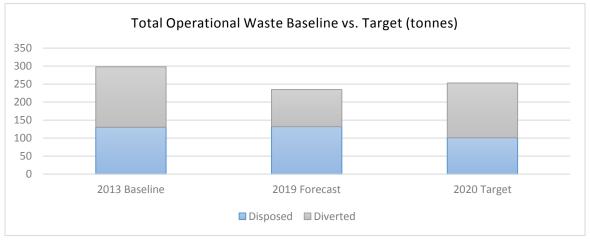
Garbage sent to landfill or incinerator									
	Baseline (FY12/13)	Current (FY18/19)							
Absolute	161.63 tonnes	137.63 tonnes							
Per FTE Student	19.36 kilograms	12.38 kilograms							

Total operational waste generated and diverted									
	2013 (baseline)	2019 (forecast)	2020 (target)						
Disposed	130.2 tonnes	132 tonnes <sup>1</sup>	101.2 tonnes <sup>2</sup>						
Diverted	167.79 tonnes	103 tonnes <sup>1</sup>	151.8 tonnes <sup>2</sup>						
<b>Total Generated</b>	297.99 tonnes	235 tonnes <sup>1</sup>	< 253 tonnes <sup>2</sup>						
Total Generated / FTE	35.56 kilograms	20.48 kilograms <sup>1</sup>	< 21.34 kilograms						
Diversion Rate	56.3%	44%	> 60%						

<sup>1</sup> Based on a projected 12 month sample period from Sept 2018 to Aug 2019 using an average diversion rate of 42.6%

<sup>2</sup> Based on achieving 40% reduction from 2013 Per FTE results and projected FTE of 11849 in FY20/21





# **IMPLEMENTED INITIATIVES**

# Operational instrative perhanour

					Results (1-5)	Comments
Multi-stream recycling	х			х	4	Contamination remains a challenge
Recycling depot	х				5	
Standardized bin & signage				Х	5	
Event recycling stations	х			х	2	Good early results, needs exposure
Deskside recycling	х		х	Х	4	
Sustainability Ambassadors				х	2	Requires dedicated coordination
Sustainability co-op		х		Х	1	Position needs to be renewed
Office supplies exchange			х	Х	1	Need to revisit and promote
Pen & marker recycling			х	Х	2	
Reusable moving totes	х		х		4	
Zero Waste Events	х	х	х	Х	2	Need to revisit and promote
Bring your own mug incentives			Х	х	2	Need to revisit and promote
Paper-use reduction			Х	Х	4	

# **FUTURE INITIATIVES**

					Impact (1-5)	Comments
Vendor responsibility		х	х		5	Discuss sustainable purchasing
Construction waste	Х	Х	Х	х	5	High priority
Infrastructure guideline		Х			1	
Outdoor recycling stations	х			х	3	
Onsite composting	х				3	To replace offsite composting
Remove single use plastics			Х	х	4	
Waste audits		Х			2	
Furniture marketplace	х		Х		3	
Update cafeteria recycling wall				Х	1	
Waste management policy		Х			5	Will be catalyst for more changes

# 2. Context and Background

Langara College is a busy undergraduate college located in Vancouver, British Columbia. The main campus is a compact 20 acres in size and consists of eight buildings providing over 67,000 square meters of usable space. Delivering a combination of university, career, and continuing studies programs, the college had annual enrolment of 22,942 students in 2017-18 and over 900 employees.

Sustainability is an integral part of the college strategic plan, and the college has committed to actively demonstrating leadership in this area through its adoption of operational best practices and initiatives. As part of this commitment, the college has also chosen to pursue a rating through the STARS framework in 2020 and is actively working towards development of an integrated sustainability plan.

As the college does not currently have a sustainability office, the waste management portion of planning will be directed by the Facilities Department who manage waste and recycling operations. This document will serve as an interim action plan to guide adoption of necessary best practices, while also bridging us towards completion of a more comprehensive and consultative strategic plan.

With this in mind, the recommendations brought forth will focus primarily on areas within the direct control of the Facilities Department, and utilize a short time horizon of 2-3 years.

# 3. Purpose

While Langara has actively pursued recycling and waste management initiatives for many years and to great success, there has been to date no formal plan to help guide decision making. The objectives of this document are both operational and aspirational.

Operationally, this plan aims to analyze existing data to help establish baseline figures for benchmarking purposes and to evaluate the performance of various initiatives. A related goal is to evaluate sources of data to identify missing or weak information, and to strengthen our monitoring capabilities going forward. Finally, this document will help clarify our existing processes, and provide context to help us prioritize or consider new initiatives in ways that complement existing initiatives or solve pressing problems.

Aspirational objectives would be to help the college reach the diversion and reduction targets set out in this document. Langara aims to be a leader in sustainability and to act beyond legislated requirements, but to date these ambitions have remained vague. Targets will take into account regional and City of Vancouver goals and will align with those set forth by governing bodies and post-secondary peers.

# 4. Existing Initiatives

While Langara is seeking to drive improvements through this planning process, there have been many successful initiatives launched through the years that have helped form a culture and habit of recycling at Langara.

# 4.1 Multi-Stream Recycling and Depots



In 2013 and in conjunction with the opening of our recycling storage facility, Langara expanded our recycling program to accept many more types of materials. The *J Depot* provides a staging and storage area where workers from Facilities, IT, engineering, and janitorial can move materials from throughout the college. Materials stored in J Depot are then picked up by our hauling partner for off-site processing.

Using a combination of 4-yard bins and plastic totes, we collect and recycle the following streams: mixed paper and cardboard, organics, mixed recyclable containers, refundable beverage containers, electronics, metal, wood, light bulbs, batteries, and Styrofoam.

In 2017, the college built a secondary depot on the west side of campus in response to increased traffic from the opening of T Building.

## 4.2 4-Stream Recycling Stations



Recognizing that clear directions and consistent visual cues are integral in helping form good recycling habits, the college has been gradually standardizing the bins and signage on campus since 2017. As of 2019, all buildings have been equipped with our standard 4-stream recycling stations with colour-coded lids and signage matching City of Vancouver conventions. The stations collect organics, paper, mixed containers, and garbage from students and employees on campus with minor variations in food service areas to collect refundable containers. With few exceptions, this transition has also replaced all of our standalone garbage cans inside buildings and classroom garbage cans were removed during the process.

# 4.3 Outdoor Event Recycling Stations



In 2019, the college purchased 30 wire garbage-bag holders to be used as outdoor event recycling stations. When set out in groups of three or four, these lightweight units allow Facilities to ensure that all outdoor-hosted events have access to recycling stations, replacing large standalone garbage bins that had previously been used.

# 4.4 Deskside Recycling



Facilities implemented a "take it with you" campaign in the fall of 2016, and instructed janitorial staff to stop emptying deskside garbage bins. We recognized that most of the garbage being discarded into deskside bins were recyclable but since there was no sorting being done, these materials were all put into the landfill along with countless thousands of bags per year.

As part of the initiative, we gradually switched out deskside garbage cans for blue recycling bins with smaller, bag-free garbage compartments, which is

now standard issue for all new employees. We accompanied this change with extensive education on how to sort, and added our standard 4-stream bins to more employee common areas to ensure that no employees were being asked to walk too far. While we experienced some initial pushback during the transition period, we were eventually able to establish a new norm and now share this expectation with all new employees.

# 4.5 Sustainability Ambassadors



At various times since the expansion of our recycling program in 2013, we have recruited student and employee volunteers to help us with our engagement and promotional activities. With the understanding that often the best way to reach our student population is through engagement with their peers, Sustainability Ambassadors are groups of student volunteers that help raise awareness.

Wearing green T-shirts, Sustainability Ambassadors are usually deployed at large events or during orientation weeks, helping their fellow students sort items at recycling stations, staffing promotional booths, and handing out surveys.

#### 4.6 Sustainability Co-op

Facilities in collaboration with the VOLT office, created a part-time student co-op position from Sept 2016 – Apr 2017 and again from Sept 2017 – Apr 2018 to drive student engagement as the college's Sustainability Coordinator. Working out of the VOLT office, the coordinator position recruited and trained volunteers, organized events and engagement campaigns, and participated in student orientation events. Working closely with our Communications & Marketing department, the position has also played an integral role in deploying our new recycling signage and implementing our coffee cup recycling campaign.

## 4.7 Reusable Office Supplies Exchange

As part of the mailroom renovation in August 2018, we added a designated space for employees to return stationary and office supplies that they no longer needed or wanted for others to take. Langara provides new stationary and office supplies using an order form system in the mailroom. This storage cabinet gives employees the option to check for a recycled item first, but still allows them the choice to request for a new item. While the initiative has been implemented, uptake has been low and improvements need to be made in the areas of promotions and ownership, with the possibility of further extending the service to students.

# 4.8 Writing Instruments Recycling Collection

Staples Canada is a college vendor and offers a free recycling program in partnership with TerraCycle to collect and recycle used writing instruments including pens and whiteboard markers. There is a collection bin located in the mailroom for employees to drop off spent writing instruments, which are then taken to Staples stores. Drop off is currently performed by Facilities, with a goal to include pickup from Staples during regular deliveries in the future.

# 4.9 Reusable Moving Totes



Facilities provides moving materials and support for employees when they need to move offices, including cardboard boxes. These lightly used cardboard boxes were sometimes reused, but mostly discarded. With the number of renovation related moves increasing drastically since 2016, Facilities decided to invest in 100 reusable moving totes in October 2018 to replace cardboard boxes. The small overall size of the campus made it feasible to allocate and recollect the moving totes on a per-move basis, and fitted dollies further made it easier for our workers to move.

#### 4.10 7ero Waste Events



We introduced the Zero Waste Event checklist in 2018 as part of an APAG5 initiative to empower our community to incorporate more sustainable practices when hosting events. Event planners could download a checklist and by following recommended practices and making decisions that create less waste, they could submit the checklist to Facilities for awarding of a Zero Waste Event certification level. Once awarded, they were allowed to display a seal on all of their print and online materials to highlight the dedication and good work that they are doing in planning an environmentally responsible event.

# 4.11 Bring Your Own Mug Incentive



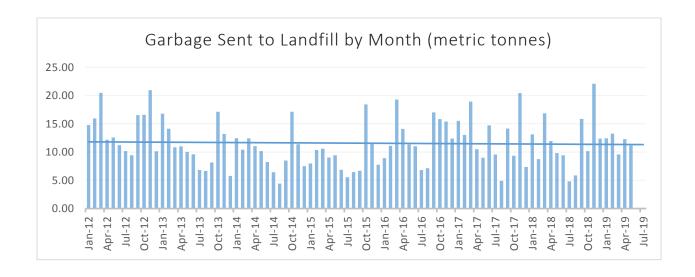
Common to most campuses, disposable paper coffee cups presents a major recycling challenge as it makes up a large portion of operational garbage by volume, and is notoriously difficult to recycle properly. Tim Horton's and Starbucks are the two largest coffee vendors on campus, and both offer a small discount when customers bring their own reusable mugs for beverages.

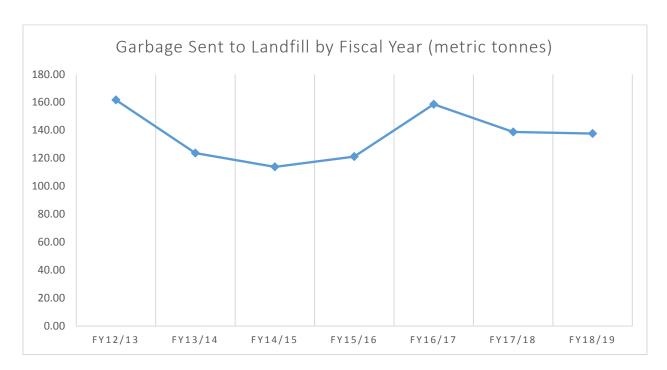
# 4.12 Paper-Use Reduction

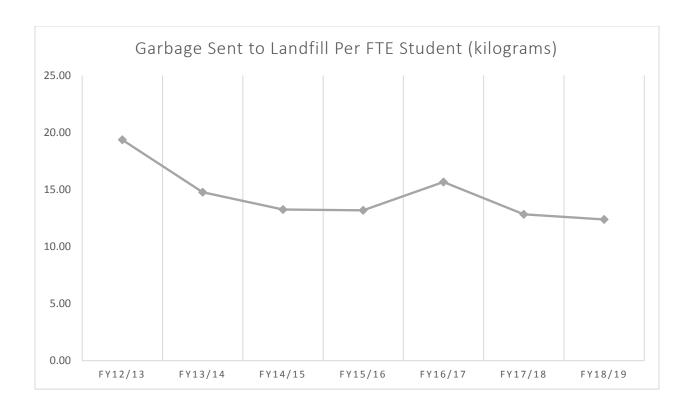
Ancillary Services and IT have been the primary driving forces behind the college's paper-use reduction strategies over the past decade. Most recently, the college replaced our entire fleet of Canon printers / copiers with new Ricoh multifunctional devices with PaperCut MF technology for better resource monitoring.

# 5. Where We Are

Using a combination of landfill scale tickets from past invoices and vendor-generated reports, we are able to put together a picture of our monthly weight totals for landfill-bound waste from 2012 to now. Taking data from our official FTE Enrolment Reports, we can calculate a value for kilogram per FT student to take into account growth in our student population over the same period.







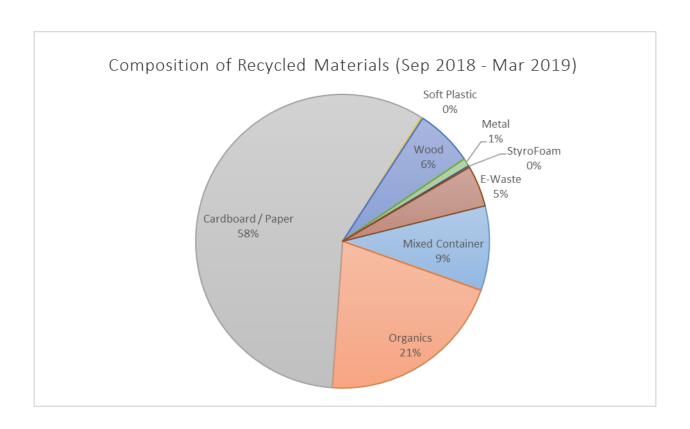
The data shows that over the past several years, the total weight of garbage sent to landfill annually has not drastically changed. Seasonal fluctuations exist and correspond to a much smaller population on campus during the summer months. Volume spikes also appear to occur with some regularity in October, November and occasionally in March, which may call for further investigation.

While overall tonnage has remained consistent over this time period, it is equally important to recognize that student enrolment increased by 33% over the same period, and that does not take into account corresponding increases in staff. For total garbage output to have held steady despite such a rapid growth in population is evidence of at least partial success of waste reduction and diversion strategies at the college.

Looking at our recycled materials volume data and diversion rates, we have a much smaller set of data. Unfortunately, this data only became a vendor requirement in our latest contract. Despite the limited sample size, we can still begin to see that our diversion rate is below fifty percent and that there is still much work to be done. Standard practice with our janitorial staff is for heavily contaminated bags to be put into the trash, but without more investigation, we cannot reasonably say to what degree contamination has affected our diversion rates.

When we break down the composition of our recycled materials, we also see that cardboard and mixed paper make up 58% of all our recycled materials by weight, with organics second at 21%. A recent waste composition study conducted for Metro Vancouver sorted waste at three transfer stations and one waste to energy facility and found that solid waste originating in the

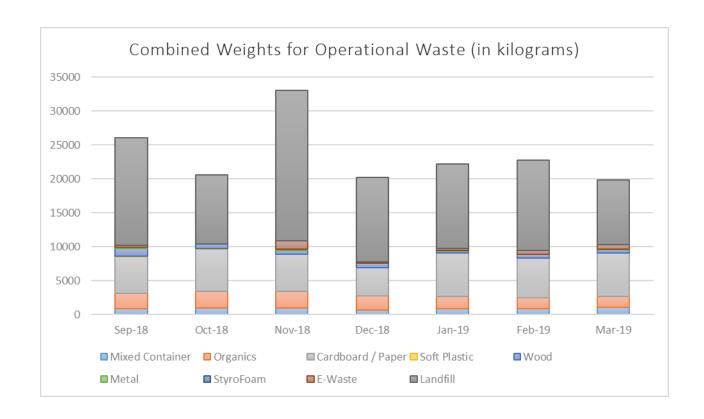
commercial and institutional sectors consisted of 32% organics and 21.6% paper.¹ Another report looking at material flows at BCIT in 2012 showed overall campus material stream composition to include 27% cardboard, 2% mixed paper, and 36% organics.² Finally, a UBC 2010/11 waste audit found that operational solid waste composition at the university was 54.7% organics and 17.5% paper.³ In any event, cardboard and paper making up such a large proportion of all recycled materials at Langara requires further investigation and may suggest that organics is being captured poorly, high usage of cardboard and paper, or a combination of factors.

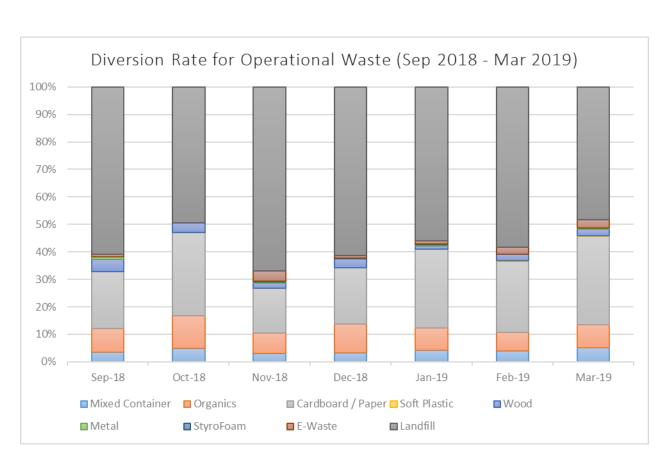


<sup>&</sup>lt;sup>1</sup> TRI Environmental Consulting, 2018 Waste Composition Monitoring Program Metro Vancouver (June 2019)

<sup>&</sup>lt;sup>2</sup> SymbiAudit Sustainability Inc., BCIT Benchmark Materials-Flow Assessment and Recommendations (January 2013)

<sup>&</sup>lt;sup>3</sup> Campus + Community Planning, UBC Vancouver Campus Zero Waste Action Plan (October 2014)





# 5.1 Preliminary Benchmarking

One of the primary purposes of this plan is to improve our monitoring capabilities to allow for more accurate and thorough benchmarking in the future. Despite not having a full year of recent data for all of our desired metrics, it may still be beneficial to look at our forecasted 2019 results in the context of our peers. The following table utilizes self-reported STARS data (most recent year) for several similarly sized North American commuter institutions.

Institution	Operational Waste (tonnes)	Student FTE	Landfill / FTE (kg)	Operational Waste / FTE (kg)	Diversion Rate
Langara College (forecast 2019)	235	11484	11.49	20.46	43.8%
Bow Valley College (Apr 2018)	139.9	6665	6.12	20.99	70.8%
Raritan Valley CC (Apr 2015)	319.3	14051	15.04	22.73	33.8%
Nova Scotia CC (Dec 2016)	254.9	10420	6.32	24.46	74.2%
HEC Montreal (Jun 2018)	230.3	8805	14.45	26.16	44.8%
Central New Mexico CC (Jul 2016)	679.5	13648	29.78	49.79	40.2%
Metropolitan CC (Apr 2018)	528.7	9771	49.16	54.11	9.1%
Polytechnique Montreal (May 2016)	353.5	6429	38.95	54.99	29.2%
Thompson Rivers (May 2018)	697.7	11963	16.74	58.32	71.3%
Joliet Junior College (Jun 2015)	712.6	9637	45.43	73.94	38.6%
Camosun College (Nov 2015)	803.6	9793	47.86	82.06	41.7%

# 5.2 Data Accuracy

Compiling data from multiple dated sources presents a number of challenges. Our chosen approach is to be fully transparent as to the sources of data, challenges, and assumptions made in order to provide users with complete information.

Landfill weights from January 2012 to December 2014 were retrieved from a report prepared by Facilities for internal use. For the period January 2015 to May 2018, weights were taken from monthly invoices from a previous contractor. While this information was explicitly stated in most cases, it was missing in approximately 20% of the invoices in which case, the weights

were calculated from the disposal charges. From June 2018 to the present, exact garbage weights are provided by our current vendor through quarterly reports.

These reports also include weight estimates for each of our recycling streams based on a number of spot weights conducted by their drivers over the course of a month, and calculated for the number of bins on site and frequency of service. As such, recycling weights and diversion rates are best-guess estimates and barring a move to exact weights, the information will be more valuable for comparisons if we use a consistent estimating methodology.

# 5.3 Information Gaps

There are at least three areas where Facilities is not currently capturing data that needs to be immediately addressed in order to give a more accurate picture of campus waste management.

- 1. Our secondary recycling depot includes a 4-yard bin for garbage collection. Weekly pickup is performed by a sub-contractor to our main hauler operating on a shared trucking route, and we do not currently receive weights or estimates for this service.
- Confidential shredding bins are located throughout the campus with service provided by a contractor to come on site to periodically empty and replace the bins. Shredded contents are then recycled. Weights for materials recycled through this process are not included in current monitoring.
- 3. Waste generated through construction and renovation projects is undoubtedly the largest segment omitted from our current waste management data. On large projects, waste management is the responsibility of the construction contractor who will bring disposal bins on campus or take materials off campus for disposal. For smaller projects, Facilities will contact disposal companies to bring in roll off bins. In both of these scenarios, we receive neither volume data nor indication that materials are being recycled.

# 6. Targets and Milestones

Langara aims to meet the following targets through the implementation of this plan. The targets are intended to reflect the specific challenges facing the waste management program at Langara today, and to align the college with regional goals set forth by the City of Vancouver and Metro Vancouver for the future. Additionally, meeting these targets will provide Langara with the data and performance necessary for wider participation in STARS reporting.

## Monitoring

- 1) Improve our monitoring capabilities to include waste generated from all sources including construction, renovation and demolition projects on campus
- 2) Report our waste data for 2020 showing operational waste, construction waste, and overall combined waste
- 3) Report our waste data for 2020 showing total operational waste generated per student FTE (combined recycled and disposed materials)

#### Construction

- 1) Introduce and adopt a construction waste management planning tool
- 2) Achieve a minimum 75% diversion rating for all waste generated as a result of construction, renovation and demolition projects in 2020

#### Overall

- 1) Achieve a 60% combined diversion rating (construction and operational waste) in 2020
- 2) Decrease the total operational waste generated per student FTE by 40% below 2013 baseline figures by 2020

# 7. Overall Strategy

Langara will utilize the following strategies to achieve the targets and milestones identified in this plan.

## 7.1 Sustained communications and engagement plan

As a university transfer college, Langara has a shorter window of time for student engagement and behavioral change than most other institutions. As such, regular and sustained communications and engagement with students is paramount. Dedicated resources will be key to ensuring these efforts do not become deprioritized over the course of the year.

<u>Recommendations:</u> Provide resources for a permanent Sustainability Coordinator co-op position with a one-year term beginning each summer. The position will work with relevant departments to review and finalize the yearly schedule of campaigns and events, participate in orientation events, and train and coordinate the volunteer Sustainability Ambassadors.

# 7.2 Improved monitoring

In order to evaluate college performance in areas of recycling and waste management, Langara needs to receive more complete data from vendors and to track metrics with better accuracy.

<u>Recommendations:</u> Information gaps identified in this plan needs to be addressed immediately by working with vendors and changing internal processes. Contracts for any service where waste is generated or removed from the campus needs to include specific language that requires disposal and diversion reporting.

## 7.3 Standardize remaining bins and signage

While the majority of the college has already transitioned to a standard 4-stream recycling station, there are some labs, studios, workshops and shared offices that continue to use standalone garbage bins. Space limitations or problematic materials will continue to present challenges, but Facilities should continue to standardize wherever possible.

<u>Recommendations:</u> Decline to provide replacements or additional non-standard bins and work with departments to align their space with standards. Investigate the option of a smaller multi-stream recycling station for areas with space limitations.

## 7.4 Work with Purchasing on vendor responsibility

Source reduction strategies can have some of the largest impacts on waste minimization at Langara. This can include restrictions on packaging materials, consideration for harmful waste, purchasing in bulk, or increasing vendor responsibility to remove materials and products when they reach the end of their useful life cycle.

<u>Recommendations:</u> Work with Purchasing and Risk Management to draft new language for inclusion in the college template for service agreements. Request for Proposals should enquire about the company's waste management and sustainability practices with scoring considerations. For all vendor-installed products, the vendor should be responsible for removing all packaging materials off site, in particular Styrofoam, with clear penalties for noncompliance.

## 7.5 Implement construction waste management program

Metro Vancouver estimates that construction-related waste makes up a third of all waste generated in the region. The materials coming out of construction projects are highly predictable and in most cases, easily recyclable. Langara is mandated as a public institution to meet minimum LEED Gold certification on new builds, but currently lacks a process to ensure sound waste management practices on smaller projects and renovations.

<u>Recommendations:</u> Review available toolkits to create a construction waste management plan template for Langara. Determine a dollar value threshold above which a project is required to complete and follow the construction waste management plan. Determine who will be responsible for creating and carrying out the plan, and the process to follow when working with trades, consultants, and construction contractors.

## 7.6 Create recycling infrastructure guidelines

The design phase for new construction and renovation projects is the ideal time to consider any space and infrastructure needs to support recycling efforts. Providing dedicated and logical areas for recycling stations is important to creating a cohesive space where recycling is shown as a priority, and not an afterthought.

<u>Recommendations:</u> Research best practices to determine an appropriate minimum level of infrastructure for various types of spaces. Consideration should be given to occupancy levels, materials used, and distances users are expected to travel. Create a formal guideline document including current standards for equipment and signage and assign ownership to project leads.

# 8. Areas of Opportunity

The following initiatives are undergoing preliminary investigation and no decisions have been made to proceed at this time.

#### 8.1 Exterior Recycling Stations

With recycling stations mostly standardized inside buildings, the college can look towards adding exterior recycling stations to replace stand-alone garbage bins. Case studies have shown that contamination rates are generally higher in exterior recycling stations, but having a consistent visual approach across our entire campus and continued education can help eliminate this remaining gap in our recycling infrastructure.

#### 8.2 Onsite Composting

Facilities is currently investigating installation of an onsite closed-vessel composter at Langara to process our pre-consumer and landscaping waste. Organics are currently being hauled and processed offsite, but the ability to close the loop on campus provides additional benefits that are not easily quantifiable. These may include a reduction in trucking needs, a supply of nutrient rich fertilizer for our own community gardens, and the potential for increased collaboration between academic and operations.

## 8.3 Single Use Plastics

The federal government and regional authorities have announced upcoming strategies aimed at reducing and eventually banning the use of certain single-use plastic items in Canada. There exists an opportunity at Langara to move ahead of an upcoming ban by voluntarily removing these items from campus through consultation with Ancillary Services and food service vendors on campus. The college may also consider working with one of several companies that have emerged in recent years that offer reusable container exchange programs.

#### 8.4 Waste Audits

The previous waste audited conducted at Langara occurred in 2013 and provided the college with invaluable information to help launch the recycling program. In order to gain better insight into contamination levels and user behaviours, the college can consider having additional waste audits every other year, conducted either through a third party or in collaboration with academics.

## 8.5 Furniture Reuse Marketplace

With limited storage space on campus, the college is challenged with keeping and reusing surplus furniture that is taken out of circulation. As a result, functional items are often discarded and new furniture is unnecessarily purchased. The college can consider introducing an internal online marketplace whereby surplus furniture can be documented and posted online as available for other employees to request. Cloud based software solutions already exist and are being looked it. Additional opportunities exist in the future to share surplus furniture across a larger network that includes external organizations and charities.

#### 8.6 Recycling Wall

The east wall in the student cafeteria serves as a large scale recycling station, but it is currently underutilized as both a collection point and as promotional space. Facilities should replace the existing cabinetry with a more efficient storage system, and allow users to bring recyclable materials that are not collected elsewhere on campus. The high visibility billboard space should be renewed with an updated design or infographic, which can potentially be changed on an annual basis as part of a student or class project or competition.

# 8.7 Waste Management Policy

Creating a waste management policy may be the logical next step for Langara to take, which formally defines the principles and strategies used to govern waste and recycling operations. Creation of a policy would ensure that operations aligns with the college vision, and would provide the authority needed to make wider changes. Having a solid waste management policy in place is also a prerequisite to qualify for waste management credits within the LEED O+M framework, if the college were ever to seek certification in the future.

# 9. Preparation for STARS

STARS (Sustainability Tracking, Assessment and Rating System) is a self-reporting framework for higher education institutions to track and gauge their performance in the many areas that defines *sustainability* in the broadest sense. As the college has chosen to utilize this framework, this section identifies relevant credits that the college does not currently qualify for, but can target through adoption of this plan.

The following information is based on Version 2.1 of the STARS technical manual

#### **OP 11: Sustainable Procurement**

Part 1 (0.5 credits) requires that the institution have written policies, guidelines or directives that support sustainable purchasing practices. Part 3 (1.5 credits) requires that the institution have published sustainability-related criteria for categories of goods and services. Working with Purchasing to integrate greater vendor responsibility for waste impacts into the service agreements and RFP documents will be applicable towards earning these credits.

#### OP 19: Waste Minimization and Diversion

Part 1 (2.5 credits) requires that the institution reduces their total operational waste per weighted user by 50% compared to a baseline year. Part 2 (2.5 credits) requires that the institution keeps total operational waste per weighted user below a certain threshold. Part 3 (3 credits) is determined by the diversion rate achieved by the college. Improved monitoring will help generate the baseline and comparison data needed to apply for these credits, while the overall plan will work towards achieving the performance and diversion targets.

#### OP 20: Construction and Demolition Waste Diversion

This (1) credit is earned by diverting all non-hazardous construction and demolition waste materials away from landfill and incinerators. Introduction of a construction waste management plan at Langara will help achieve this credit, and provide the data necessary for reporting.

# **OP 21: Hazardous Waste Management**

Part 2 (0.5 credits) requires that there be a program in place to recycle, reuse or refurbish electronic waste. While there currently is such a program at Langara, it is only available to IT and Facilities staff. Introducing a public collection point in the student cafeteria would earn the full credit available for this initiative.

## EN 1: Student Educators Program & EN 2: Student Orientation

A maximum of (4) credits are available for institutions that engage students in peer-to-peer outreach programs, which must include provision of training, financial and administrative support. Another (2) credits are given if sustainability is a prominent part of all student orientation activities. Creation of a permanent Sustainability Coordinator co-op position working with student volunteers and relevant departments will help the college to achieve these credits. Additional engagement related credits are available dependent on the scope and work assigned to the position.