

Sustainable Water Consumption

Elizabeth Cheong, Jodie Davies, Lesley Tulipano, Bernice Wong

University of British Columbia

COMM 486F/SEC 201

April 4, 2013

Disclaimer: "UBC SEEDS provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student project/report and is not an official document of UBC. Furthermore readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Coordinator about the current status of the subject matter of a project/report".

Sustainable Water Consumption

This report outlines how Sustainability Marketing practices can be used to reduce landfill waste in the form of water bottle purchases and increase the use of reusable water bottles at UBC.

Prepared for:
UBC Sustainability
April, 2013

a social marketing strategy for the university of british columbia
by elizabeth cheong, jodie davies, lesley tulipano, and bernice wong

- ◆ This report is a social marketing plan prepared in continuation of a University of British Columbia SEEDS Project: Shifting to Sustainable Drinking Water Consumption. It defines a series of sustainable marketing strategies geared towards the promotion of available clean water sources around campus. In turn, it discusses the reduction of disposable water bottle purchases and increase of reusable water bottle purchases at UBC.
- ◆ Over the past few years, UBC Sustainability and affiliated organizations have made significant gains in developing resources to enable sustainable water consumption on campus. From the extensive sale of reusable water bottles to the introduction of requirements enforcing the presence of water fountains in all new buildings, UBC has grown a substantial network of alternatives to the disposable water bottle. However in spite of the immense availability of clean water resources, few students are taking advantage of the freshest and cheapest method of water consumption: drinking from the tap. The reasoning behind this is a lack of awareness and promotion around the cleanliness and sustainability of Vancouver tap water.

Awareness, Support and Participation

- ◆ We have defined a three-pronged strategy plan to encourage the use of sustainable water resources in and around campus. Our differentiated strategy was developed with respect to four distinct audiences in the student body as segmented based on their mindset toward sustainability. Under each umbrella strategy, we have analyzed a number of tactics, ranging from informational posters to negative reinforcement practices. Through consumer surveying and past research, we make strategic recommendations on best promotional methods.
- ◆ Our strategy begins with short, attention grabbing techniques to quickly penetrate the market and increase the public's awareness of our main issue: Vancouver tap water is clean and free. While our audience's attention is piqued, we will seek administrative support from sustainability-oriented student and staff organizations alike. Through their support we will be able to create large scale campaigns such as Sustainability Week, and increase our impact on the student body. When we have garnered enough attention and support for our issue, we will be able to encourage participation by members of our target audience. In following this structure, we will be able to foster desired behaviours on UBC campus, driving positive change and reducing environmental impact.

Executive Summary.....	1
Who is UBC Sustainability.....	3
Situational Analysis.....	4
SWOT.....	4
The Issue.....	5
The Goal.....	5
Market Situation.....	6
Potential Penetration.....	6
Segmentation.....	8
Target Market.....	9
Marketing Strategy #1: Awareness.....	10
Tactic 1: Blind Water Taste Test.....	10
Tactic 2: Posters.....	11
Tactic 3: Video Series.....	12
Marketing Strategy #2: Support.....	13
Tactic 1: Sustainability Week.....	13
Tactic 2: Imagine Day.....	13
Tactic 3: Jump Start.....	15
Tactic 4: Area Maps and Signs.....	16
Tactic 5: Water Fountain App.....	17
Marketing Strategy #3: Participation.....	18
Tactic 1: Green Tax.....	18
Tactic 2: Eco-To-Go.....	19
Tactic 3: Keys Wallet Water Bottle.....	20
Tactic 4: Online Marketing.....	21
Eliminated Tactics.....	22
Financial Projections.....	23
Implementation Plan.....	23
Timeline of Execution.....	23
Performance Measures.....	25
AMS Sustainability Fund	25
Acknowledgements.....	26
Works Cited	27
Appendix 1: Faculty Breakdown.....	29
Appendix 2: UBC Study.....	30
Appendix 3: Project Survey Results	31
Appendix 4: Transtheoretical Model.....	37
Appendix 5: Posters.....	39
Poster 1.....	39
Poster 2.....	40
Poster 3.....	41
Poster 4a.....	42
Poster 4b.....	43
Poster 4c.....	44
Appendix 6: Water Bottle Choices.....	45
Appendix 7: Logo Choices.....	46
Appendix 8: Keys Wallet Water Bottle Sticker Prototype.....	47
Appendix 9: Financial Projections.....	48
Appendix 10: Proposed Timeline.....	49
Appendix 11: Green Tax Analysis	50

- ◆ UBC Campus Sustainability operates within Campus and Community Planning to coordinate sustainability initiatives on campus. UBC Sustainability oversees four groups: operational management personnel, research and partnerships, a teaching and learning office, and a central office that communicates and engages with the wider community. Students, faculty members, and staff at UBC are involved in various capacities in UBC Sustainability's projects. To engage students, SEEDS projects are one way that encourages students to develop projects and delve into research that may be relevant to academic pursuits and earn credits for their work or simply on a voluntary basis.
- ◆ Since 2010, UBC Campus Sustainability has undertaken numerous projects, collaborated with many partner organizations, and initiated considerable changes to propel proposals such as the 'Campus as Living Laboratory' into implementation. One recent initiative on campus is to reduce water consumption, create a closed loop water system and also raise awareness for the clean tap water resources that are available on campus. This last campaign is supplemented by a vision to significantly reduce and eventually eliminate the sale of plastic bottled water at campus food service outlets and student dining halls.
- ◆ Plastic bottled water is a highly wasteful product and due to Vancouver's pristine tap water quality, an expenditure that is illogical and irrational. Water bottles claiming to be made from recyclable materials are only partially made from recyclable materials, and the plastic components are increasingly damaging to the environment. The availability of water fountains and water refill stations at UBC are sufficient, and students, faculty, staff, and visitors of UBC should not have to look for alternatives to free tap water in the form of plastic bottled water and filtered water containers ordered by companies such as Canadian Springs.
- ◆ However, consumers are misled by the perception that tap water sources are contaminated, have a worse taste than bottled water and are not easily accessible. There is also a public stigma against tap water. Bottled water has been branded by influential companies such as Coca Cola and Nestle in the past few decades and consumers' misconceptions will be hard to shift. Coordinated and supported awareness strategies must be used to target these consumers and educate them about the negative effects of plastic bottled water on the environment, and also lead them to the easy alternative of free tap water sources.
- ◆ Consumer adoption can be facilitated with a three-pronged strategy aimed at spreading awareness, gathering support from administrative bodies and student groups and encouraging participation from all those who study, work, and live on the UBC campus.

Strengths

- First to adopt Sustainable Development Policy, open sustainability office, campus-wide sustainability strategy
- STARS Gold Ranking, which is obtained by only 18.7% of institutions
 - Is a STARS MCP member, in which:
 - M means AASHE member, C means STARS charter participant and P means Original STARS pilot Participant
- Wide availability of reusable water bottles for sale in various locations across campus
- Over 30 undergraduate, graduate and professional sustainability study programs that will increase the number of sustainability interested students to become more active

Weaknesses

- Low social media presence in certain mediums, specifically YouTube, Pinterest, Facebook
- Lack of knowledge as to what other notable campuses and institutions are doing to enhance sustainable water consumption
- Uncertainty regarding demographic and activeness of the general community
- Lack of universal signage that can identify clean water sources to individuals from both inside and out of campus boundaries
- Small internal focus on marketing and promotions
- Online area maps are outdated and difficult to use
- Few physical area maps on campus, and none of which highlight drinking water resources

Opportunities

- Surrounding community of students, faculty and staff are enthusiastic about sustainability causes
- High student involvement around sustainability and water-related issues in the form of student governments (AMS Sustainability) and student clubs (Various)
- Student petitions on water such as the Tap That petition by Common Energy UBC
- Recent hiring of a Marketing Manager at Student Housing and Hospitality Services

Threats

- Wide availability of filtered water options such as through WaterFilz or Canadian Springs fountains, which may influence public perception of tap water
- Extreme convenience of using disposable water bottles
- Prevalent misperceptions on the cleanliness of tap water in Vancouver
- Backwards advertisements on the part of bottled and filtered water companies

- ◆ To encourage sustainable water consumption at UBC, we first required coordination between all administrative stakeholders. UBC Campus Sustainability, the SEEDS Program, Student Housing and Hospitality Services and the Alma Mater Society of UBC are our three client organizations who are seeking an increase in clean tap water consumption on campus. In this task, we encountered our first challenge in aligning the goals of the different stakeholders. Although these stakeholders are seeking a common goal of water bottle reduction, our initial challenge was creating a universal strategy suitable to the specific requirements and specifications of each organization.
- ◆ Our client organizations defined the following as their key challenges in designing a social marketing plan for sustainable water consumption:
 - ◆ Lack of awareness as to what other institutions are doing to increase sustainable water consumption
 - ◆ Uncertainty as to whether community members support drinking water from taps
 - ◆ Lack of universal symbols indicating availability and placement of clean drinking water

The Goal

- ◆ The goal was to perform research into the first two key issues in order to develop a universal logo for the third. After consultation sessions with representatives from each of the organizations, we have determined that the following concerns are the key limitations to UBC Sustainability's current market strategies:
 - ◆ Large portions of budgets are spent to maintain widely available resources, but these resources are not well advertised so that consumers know they exist
 - ◆ Low social media presence in spreading awareness on the availability and cleanliness of water, specifically the water on campus
 - ◆ Inefficient follow-up to projects initiated by each of the stakeholder groups, and little to no collaboration in their efforts
- ◆ In light of these observations we have specified a central goal for our project. We seek to increase collaboration between our stakeholder groups to enhance the image and use of clean water resources on campus. Through a three-stage strategic marketing campaign, we aim to increase the number of individuals drinking from a range of water fountains in UBC by 13% to 33%. This will reduce water bottle usage and increase use of idle resources around UBC, increasing the sustainable and efficient provision of clean water on campus.

- ◆ UBC Vancouver currently has approximately 50,000 enrolled students. Of these, approximately 40,000 are undergraduate students and 10,000 are graduate students. In addition, the University employs approximately 13,500 staff and faculty members. UBC has a very diverse student population; over 8,000 students are international students and comprise approximately 15% of the student population. In particular, 25% of these students are from China. (Farrar, 2012 and UBC Public Affairs, 2010). Student population has averaged growth of 2% per year for the past 6 years and the 2012/2013 academic year saw 49,241 students enrolled (Farrar, 2012)
- ◆ In addition to students, faculty and staff, UBC receives visitors to the campus that contributed over \$270 million in the 2009/2010 academic year. (UBC, 2009). This is important because although turning UBC into a campus that doesn't sell water bottles seems desirable, these visitors need access to water. It is unlikely that they will carry a reusable bottle if they have never visited UBC before and are unaware of this policy.

Potential Penetration

- ◆ In addition to UBC's sizable population, the age of these students makes them an attractive market. Domestic students have an average age of 23 while international students average 21. This age group has grown up in an era that has focused on environmental concerns and has some understanding of the impacts of water bottles on our environment. As well, this age group is young enough to still be open to new ideas and changing their habits with reason.
- ◆ Statistics from the 2011/2012 academic year outline the largest 3 faculties as: Faculty of Arts (11,700 students), Faculty of Science (6,900 students) and Faculty of Graduate Studies (9,300) - see Appendix 1 for further faculty breakdowns (Enrolment Services, 2012). Targeting these 3 faculties will have a large impact in terms of number of students involved. However, in 2011, a survey of transfer students across 7 faculties was taken to understand what students hope to gain and achieve by attending UBC (the results found are also similar to those of direct entry students) (Planning and Institutional Research UBC, 2011). One of the sections was titled - 'adopting green practices to protect the environment' (see Appendix 2). Of the 7 faculties surveyed, 80% of transfer students into the Faculty of Land and Food Sciences felt this was an important and almost essential goal during their time at UBC. The faculty with the lowest concern for adopting green practices to protect the environment was the Faculty of Human Kinetics – 58%.

- ◆ A second section assessed whether ‘becoming involved in programs to clean up the environment’ is important to transfer students. Students from the Faculty of Forestry were more likely than other faculties to select this as a goal for their UBC experience – 64%. The lowest likelihood came from the Faculty of Arts with only 40% selecting this goal. These results can be interpreted in one of three ways:
 - ◆ These findings are interesting because although the Faculties of Arts, Science and Graduate Studies have the largest number of students, they are not necessarily interested in adopting green practices or involving themselves in programs to clean up the environment. If we choose to target Arts, Science and Graduate Studies, our penetration rates could be very low in comparison to targeting Land and Food Science, Forestry and Commerce. The latter three have higher interest in green practices and cleaning up the environment, even though the number of students in those faculties is considerably lower.
 - ◆ Students such as those in the Faculties of LFS, Forestry and Commerce have a greater interest in their environmental impact and intuitively are already taking part in our desired behaviour – bringing a reusable water bottle. As a result, if we choose to target these faculties our penetration rate could be lower than targeting Arts, Sciences and Graduate Studies who intuitively are not already carrying water bottles because their interest in their environmental impact is limited.
 - ◆ Students should not be targeted based on the faculty with which they belong, instead, targeting based on their views and behaviours toward reusable water bottles may be more appropriate.
- ◆ Another insight of interest is that student opinions differ between the idea of ‘adopting green practices to protect the environment’ and ‘taking part in programs to clean up the environment’. The percentage of student agreement was higher in the adopting green practices section than it was in the environmental cleanup section across all 7 faculties. Our ideal behaviour of bringing a reusable water bottle is both adopting a green practice and taking part in a program to clean up the environment. However, it is important that we then position our social marketing campaign toward the former to achieve greater student participation.
- ◆ In relation to penetration of our initiative, according to our survey, 17% of respondents said they never bring a reusable bottle to campus and a further 16% said they bring one 1-2 times a week (see Appendix 3 Question 2). Therefore, 33% of respondents have not adopted our behaviour. However, our survey also outlines that only 13% of respondents purchase water bottles on campus every week. As a result, although 33% are not bringing their own reusable water bottles, 20% of them are not purchasing water on campus either. From this we can conclude that our rate of penetration will vary between 13% and 33% of students. This equates to approximately 6,500 to 16,500 students that have the potential to adopt our behaviour.

- ◆ The probability of adoption for our campaign is quite high among those students not already exhibiting our desired behaviour. These students are likely to adopt due to several factors. Firstly, UBC students on average are 23 years old. This age group is not already set in their ways and welcomes change more readily than older generations. Secondly, in relation to the Transtheoretical Model (see Appendix 4 for further explanation), our survey shows that 23% of students are in the first 3 stages - precontemplation, contemplation and preparation (See Appendix 3, Question 4). By using specific tactics such as educating and informing students, using emotional appeal and helping students enlist social support, we can cater to these students and further their process to one of taking action. Finally, by reducing barriers such as student perceptions about tap water cleanliness and the lack of available water fountains, in addition to increasing barriers on water bottles such as taxes on purchases, our desired behaviour will be achieved.
- ◆ Our goal is to increase on campus tap water consumption and decrease water bottle purchases, therefore, our main market of interest is UBC students. Although there are other groups such as faculty and staff as well as other residents living on campus contributing to water consumption, UBC students make up the majority of the campus comprising of 40,000+ students. Within our market of interest - UBC students - we have divided them into four categories depending on their current views of sustainable practices (see Appendix 3 Question 16 for detailed segmentation analysis). The following segments are listed below:

Segmentation

- ◆ **Sam: 47% of respondents (Action and Maintenance phases of Transtheoretical Model)**
 - ◆ Sam is a 24-year-old fourth year UBC student. She is concerned about the environment and actively takes action to protect it. She not only signs petitions for environmental issues but also takes part in groups that help clean up garbage, she starts environmental clubs and encourages others to view the world in the same way that she does. She can be seen walking, biking or taking public transit, but rarely driving due to environmental reasons. She brings a reusable water bottle to campus everyday and fills up with the tap water around campus because she knows her efforts will help make the world a better place.
- ◆ **Jaime: 37% of respondents (Preparation or Action phases of Transtheoretical Model)**
 - ◆ Jaime is a 20-year-old second year UBC student. He wants to help the environment but often doesn't know how. If he is encouraged by others or is showed how to help, he will willingly offer to do his part. He finds it difficult to know what practices are sustainable and how to help since he lives at home with his parents, who are not as interested in the environment. Recently he has started using a reusable water bottle after his friend Sam showed him the negative impact of plastic water bottles. He is often a follower when it comes to environmental practices. He takes public transit whenever he can, mostly because it helps the environment but also because he does not own a car.

- ◆ **Blake: 13% of respondents (Contemplation phase of Transtheoretical Model)**
 - ◆ Blake is a third year UBC student who is 22-years-old. He doesn't care about the environment but will follow sustainable practices if it is convenient or it will save him money. He takes transit but only because it is the cheapest mode of transportation to school. On the weekends he prefers to use his car. He does not bring a reusable water bottle on campus because he thinks it is too heavy to carry around and inconvenient. He buys plastic water bottles because he does not believe it will contribute to global warming. He does recycle the bottles but only when he gets the bottle fee back.
- ◆ **Riley: 3% of respondents (Pre-contemplation phase of Transtheoretical Model)**
 - ◆ Riley is an 18-year-old, first year international student at UBC. She does not care about global warming and does not see the benefits to recycling. She walks to school because she lives on campus but when she travels off campus she uses her car for convenience. She buys plastic water bottles everyday because she believes the tap water does not taste as good and may not be as clean as bottled water. She would not stop buying water bottles even if an extra tax as implemented to the price. She doesn't bring a reusable water bottle because she thinks it is too heavy to carry around.

Target Market

- ◆ After segmenting the market, we decided to use a differentiated approach to target the market. This approach targets several segments with different strategies that appeal to each. We suggest targeting Riley, Blake and Jaime as these three segments can improve their environmental efforts by decreasing their water bottle consumption and increasing their tap water consumption. The three segments of Riley, Blake and Jaime were represented by 53% of respondents in our survey. Therefore just under 50% of respondents are already exhibiting our desired behaviour of drinking tap water. However, we need this number to rise to far greater than 50% to make a sizeable impact. Additionally, selecting this method is important because each target market (Riley, Blake and Jaime) is at a different stage in the Transtheoretical Model and will require different tactics to their change behaviour.
 - ◆ Jaime is in the preparation or action stage. Helping those in the preparation stage switch to tap water requires outlining simple ways to do so, such as providing them with a reusable water bottle as well as clearly outlining where water fountains can be located. Those in the action stage are already using tap water, therefore we need to enforce this behaviour in the long run by taxing bottled water and making it undesirable.
 - ◆ Blake is the contemplation stage. He knows about the effects of plastic water bottles but only chooses to do something to help if it is convenient or less costly. To change his behaviour from contemplation to preparation, we need to educate Blake about his environmental impact as well as providing him with easy access to clean water facilities.
 - ◆ Finally, we want to target Riley because she is in the precontemplation stage. To change Riley's behaviour we need to make her aware of the clean drinking water available on campus, the negative effects of plastic water bottles and the cost savings from drinking tap water. This is the segment where we want to see the biggest change in behaviour. It is also the hardest segment to change since they are in the earliest stage of the transtheoretical model. Our goal is to eventually move this segment into the action stage.

Marketing Strategy #1: Awareness

- ◆ Outlined below are 3 strategies each with a variety of tactics that have been recommended to change student behaviour at UBC. A detailed implementation timeline can be found in Appendix 10 of this report. Our strategies were developed from results of an online survey we distributed via Facebook, with a sample size of 90 students. The results of this survey can be seen in Appendix 3.
- ◆ **Strategy #1** - The first strategy we have identified is **to increase awareness** of Vancouver tap water cleanliness. Outlined below are three main tactics to achieve this:
 - ◆ **Tactic 1: Blind Water Taste Test**
 - ◆ The first tactic is to implement a blind water taste test in the Student Union Building. This will be a public, in-person test to see if students can determine which glass is filled with tap water from a UBC water fountain, and which is filled with bottled water from Canadian Springs. Since the majority of people can't actually tell the difference between the two waters when they are not labeled, it will be a beneficial test to show students there is no difference between the two waters. This is also an opportunity to educate the student body about the cleanliness of our water in comparison to many places around the world.
 - ◆ Goals
 - ◆ This blind water test will achieve our goal of improving awareness by attracting student attention in the SUB. It will create good publicity and will generate buzz within the student population surrounding our initiative. It will also reaffirm that Vancouver's tap water is clean, and that there are no obvious taste differences between tap and bottled water.
 - ◆ Costs
 - ◆ This tactic will be easy to implement as it requires few costs and little marketing. The only costs include the cost of cups, signs and approximately five Canadian Springs water containers. Marketing costs will be low by harnessing social media and word of mouth as well as attracting student attention during peak hours at the SUB. The taste is also self-promoting as students will try to prove to us, and others, that they were able to guess correctly.
 - ◆ Logistics
 - ◆ This booth will run for approximately a week in the SUB. An ideal location for our booth is near Bernoulli's Bagels due to high student traffic in that area and a large number of students waiting for food. The booth can also be set up during Sustainability Week to maintain a consistent message.
 - ◆ Risks
 - ◆ The only risk involved with this idea is if people select the bottled water as their preferred choice. This will reinforce their negative views regarding tap water and will continue bottled water purchases because these students believe they can taste a difference. To mitigate this risk, we will encourage the student to take a second taste test but fill both cups with tap water. When a student selects one of the cups as tastier than the other, we will tell them that they are both tap water and they still were fine with drinking it.

Marketing Strategy #1: Awareness

◆ **Tactic 2: Posters**

- ◆ The second tactic is to place posters across campus to encourage students to use water fountains and decrease the spending of plastic water bottles. In order to do this we have four distinct posters (see Appendix 5):

- ◆ The first poster will have the slogan 'paying for water is like paying for air.' This poster will be very simple with a single coloured background and one plain image such as a cloud or a feather in the center. At the bottom of the poster it will have building specific directions to the nearest water fountain. See Appendix 5 for an example. This will make students aware of how unnecessary it is to pay for water when there is an abundance of accessible, clean and free drinking water across campus.
- ◆ The second poster will have an image of a large landfill filled with plastic water bottles. The slogan will read: 'do you really want to buy another water bottle?' and beneath it will say 'shift to tap water.' See Appendix 5 for an example. These posters will help induce guilt and fear when looking at the image of the landfill. In addition, as the posters direct students to a nearby water fountain, these posters provide students with a way out.
- ◆ The third poster will contain facts about the cleanliness of Vancouver's tap water. It states that Vancouver's tap water is 3 ppm compared to bottled water at 60-90 ppm and compared to other cities in the world that can be up to 170 ppm. Below these facts the posters will also say 'shift to tap water'. See Appendix 5 for an example. These posters will show students the scientific facts behind the cleanliness of Vancouver's tap water to offer credibility to our campaign. The posters will also be able to compare Vancouver's clean water to various bottled water companies and other cities around the world outlining that our water is some of the cleanest in the world.
- ◆ The fourth poster will show how many water bottles a student would need to buy in order to get things such as a beer, a whistler lift ticket, a concert ticket, etc. See Appendix 5 for an example. These posters will help reinforce that plastic water bottles are expensive and that tap water is free. It will show students that they could be spending their money elsewhere.

◆ Goals

- ◆ The goal of putting up the posters is to make people aware that Vancouver's tap water is safe and clean to drink. By using emotional appeals as well as logical and factual appeals we hope to switch people from using plastic water bottles to water fountains.

◆ Costs

- ◆ The costs of producing and distributing posters are very minimal. Printing costs will be minimized by ordering in bulk to provide enough posters throughout campus. Creation and graphic design costs will also be minimal. Our prototypes are basic ideas and suggestions, however, they could be much more visually appealing. UBC has very talented students and it would be easy to hire one for free or at low cost to design these posters. Finally, we suggest asking student volunteers to place these posters across campus.

◆ Logistics

- ◆ The poster designs will already be completed and a sustainable printing company will do the printing. Students will then put up the posters in high traffic locations such as the SUB, the bus loop and entrances to buildings. The posters will also be put up near places plastic water bottles are being sold, such as the Sauder Café and vending machines. The fact-based posters can also be put up in bathroom stalls so that people have time to read the content on the poster.

Marketing Strategy #1: Awareness

◆ Risks

- ◆ There are no foreseeable risks with this tactic. The only disadvantage is if the posters are ripped down or people do not notice them enough to make an impact on their behaviour.

◆ **Tactic 3: Video Series**

- ◆ The third tactic to increase awareness is a video series. The videos will be posted on YouTube and Facebook to inform students about sustainable water consumption on campus. This will be a continuous series but the videos outlined below will be launched first.

- ◆ The first video will introduce new water fountain logos (explained later in this report) and signs on campus. This will make students aware that in every building, maps that will outline the nearest water fountain through the use of this logo.
- ◆ The second video will help promote our reminder stickers that read “don’t forget your...keys, wallet, water bottle.” The video will feature a student running out of their home forgetting something, then looking at the sticker on her door and running back to get her water bottle.
- ◆ The third video will be a street video. We will approach students using plastic water bottles and ask them why they are using a plastic water bottle instead of tap water and then give them facts on Vancouver’s clean water and offer them a free reusable water bottle.
- ◆ The fourth video will not be made by students but will feature the life cycle of a plastic water bottle. This will make students more aware of the negative effects of plastic water bottles.

◆ Goals

- ◆ The goals of these videos are to increase awareness of Vancouver’s clean tap water, show the negative effects of plastic water bottles, how to remember your own water bottle and where to find campus water fountains. Since the majority people in our survey mentioned they didn’t use tap water because they found it hard to remember their own water bottle (see Appendix 3 Question 3) and they didn’t know where to find water fountains, it is important that these videos focus on these aspects.

◆ Costs

- ◆ This tactic will also be virtually cost free. The only costs will be locating a good camera to film the videos with but UBC has many clubs with a variety of cameras that we could borrow. The filming by students, editing and uploading to social media will all be free.

◆ Logistics

- ◆ In order to film some of the videos, friends will be able to fill in as actors. In other videos, we will need student participation. To find student participation, for example in the street videos, we will film in high traffic locations such as the SUB to increase the chances of participation. Once the videos are edited by student volunteers we will be able to load them onto YouTube and Facebook.

◆ Risks

- ◆ The risks involved in the videos are relatively small but must still be taken into consideration. These videos are heavily reliant on promotion. If nobody knows about the videos, then nobody will watch them. There also needs to be a large following on Facebook before the video series can be launched in order to maximize the number of students we are able to reach. If the videos are not done properly students could think they are lame and will discontinue watching them.

Marketing Strategy #2: Support

- ◆ **Strategy #2** - The second strategy is to **gather administrative support** across campus to further the reach of our message. We will do this using the five tactics outlined below.

- ◆ **Tactic 1: Sustainability Week**

- ◆ Currently, Sustainability Week is held in April at the end of the academic year. Sustainability Week should additionally be held in September, similar to clubs week. During this time, students are back at UBC, looking to join clubs and initiatives prior to classes beginning. As a result, we can reach the maximum number of students. During this week, a booth should be set up with the blind water taste test, as outlined in strategy 1. In addition, free 'keys, wallet, water bottle' stickers should be available. Our initiative can work closely alongside other UBC Sustainability initiatives and provide their booths with stickers to give out to students. This raises awareness among students as well as providing them with a reminder every time they see it.

- ◆ Goals

- ◆ Having a presence in the form of a booth at Sustainability Week will help improve awareness. Additionally, by working alongside other Sustainability Week initiatives, we can earn their support and cooperation for future campaigns. This support is primarily in the form of word-of-mouth marketing where other booths can share our message to reduce the number of water bottles and reach a wider student population.

- ◆ Costs

- ◆ This tactic involves very minimal costs. The main cost is the printing of the 'keys, wallet, water bottle' stickers and 3-4 posters to decorate the booth. These costs are outlined in their respective tactics.

- ◆ Logistics

- ◆ Our booth should be located alongside other Sustainability Week booths in the SUB. Each day, 2 members should be present at the booth to administer blind water taste tests. A third member will be speaking to the public, directing traffic and interest toward our booth, along with explaining our initiative, and what we hope to achieve.

- ◆ Risks

- ◆ There are no risks associated with this tactic.

- ◆ **Tactic 2: Imagine Day**

- ◆ Imagine Day is a mandatory 1 day introduction for 1st years at UBC. Students attend multiple welcome sessions across campus and meet a variety of the University's faculty and staff. This is an ideal time for drinking water topics to arise. During President Toope's welcome speech, mentioning that our water is clean and that UBC is striving for a water bottle free campus is important. This is the first impression that 1st year student have of UBC and instilling these ideas in from day 1 is key. Following welcome sessions, all students are assigned to a MUG Leader. This leader gives them a campus tour and tells them stories and fun facts about UBC. MUG Leaders should provide each of their students with a free water bottle.

Marketing Strategy #2: Support

- ◆ As our survey shows, the most important assets of a water bottle are: leak proof, cool design and suitable for both hot and cold drinks. Factors deemed least important include: branded water bottle, changeable lids, handles and made of stainless steel (see Appendix 3 Question 15). Our results show the ideal water bottles to be options 4 and 5 (see Appendix 6) with 20% of votes each, closely followed by option 6 with 18% of votes (see Appendix 3 Question 14). This should be taken into account to ensure students use their water bottle in the future. During campus tours, MUG Leaders should also point out water fountains around campus and inside select buildings. They should introduce the water fountain logo and where to look for it on signs. Our survey results show option 8 (see Appendix 7) to be the logo that best represents 'Clean Drinking Water Here'. This logo was also ranked the most universal logo meaning people of different ethnicities would understand that the image means 'Clean Drinking Water Here'. Option 8 received 32% of votes followed by option 3 with 28% (see Appendix 3 Questions 9 and 10). Our respondents ranked the simplicity of the image and the fact that the image has a faucet in it to be the most important factors when deciding (see Appendix 3 Question 11). Finally, MUG Leaders can introduce students to the new water fountain app as will be explained in Tactic 5.

- ◆ Goals

- ◆ Using this tactic we hope to get Imagine Day involved in our initiative and spread our message to incoming first year students. In doing so, we hope to set a new norm that bringing a reusable water bottle and filling it up on campus is the best source of water. Intuitively, it is easier to approach incoming first years with this idea than it is to change the habits of 3rd and 4th years. As a result, we hope these first year students will continue to bring reusable water bottles throughout their time at UBC.

- ◆ Costs

- ◆ Costs associated with this tactic relate to the supply of water bottles to all first year students in addition to the placement of the water fountain logo on signs across campus. UBC welcomes approximately 6000 1st year students each year. Water bottles in large quantities range from \$0.60 to \$1.50 per bottle, thus, purchasing 6000 water bottles will cost approximately \$6000. In relation to logo placement on signage across campus, this can be done in-house to minimize costs and will include the printing of the logos and labour to place them. Exact costs are not available at this time.

- ◆ Logistics

- ◆ As outlined, water bottles will be distributed to students through their MUG Leader at the beginning of Imagine Day. During campus tours and welcome sessions, the cleanliness of our water will be explained in detail. In relation to the water fountain logos, these should be placed in buildings on navigational signs, ideally beside the universal washroom logo.

- ◆ Risks

- ◆ Risks associated with this tactic include: water cleanliness is not expressed enthusiastically and students stop caring, MUG Leaders are not being educated about the location of water fountains, our logo and app. To reduce these risks, MUG Leaders should be educated in our water cleanliness and our initiative. Additionally, teaching them where fountains are located and what the logo looks like will be beneficial.

◆ **Tactic 3: Jump Start**

- ◆ Similar to Imagine Day, Jump Start is a welcome week for International students who are new to UBC. Students at these welcome events and information sessions should be provided with a free water bottle. These bottles should be the same design as the ones outlined in Tactic 2 above. During Jump Start week, students attend many information sessions relating to UBC, in addition to Vancouver and Canada. These sessions outline cultural differences students might encounter and are an opportunity for water bottles to be spoken about. As these students are largely first years in addition to being international, it is an opportunity to educate them about our clean water supply and how safe our taps are to drink from. This is especially important as many students are from nations where clean tap water isn't accessible and bottled water or filtered water is the norm. This information session should also outline where water fountains are available, what logo to look for and the availability of the water fountain app.

- ◆ Goals

- ◆ Same as Tactic 2 goals in addition to educating international students that our water is probably safer to drink than the water they are used to in their home countries.

- ◆ Costs

- ◆ Water bottles cost between \$0.60 and \$1.50 per bottle and will be provided to each Jump Start student (exact numbers of Jump Start students are not known).

- ◆ Logistics

- ◆ Students will receive a brief 10 minute water information session outlining: our water's cleanliness, our goal to eliminate water bottles in the future, our abundance of water fountains across campus, the location of water fountains on campus and our new water fountain app. In addition, a water bottle life cycle video should be shown to outline that most bottles end up in landfills.

- ◆ Risks

- ◆ Similar to Tactic 2, risks include: our goals not being expressed clearly and letting students know what they can do to help and presenters not being educated enough about our initiative. Educating presenters and clarifying our message will mitigate these risks.

◆ **Tactic 4: Area Maps and Signs**

- ◆ To help students, faculty, staff and visitors to UBC campus locate water fountains more easily, detailed area maps should be placed in all buildings. These maps should be placed at the building entrance and outline where particular rooms are as well as washrooms and water fountains. The water fountain logo (as detailed in Tactic 2) should be placed on the area maps. These maps should be very specific and visually appealing to make the location of clean drinking water very clear. In addition to one area map at the main entrance, area maps should also be placed on every floor at the top of each stairwell and elevator. Our survey results show that students believe more water fountains on campus would encourage them to bring a reusable bottle (see Appendix 3 Question 5). As another SEEDS initiative is working on water fountain availability and frequency in buildings, our initiative can work alongside by clearly identifying the locations of these water fountains. In addition, we recommend placing signs above water fountains with our logo on them. Similar to washroom signs, students will be able to look down a hallway and easily locate where the water fountain is.

◆ Goals

- ◆ By creating building specific area maps, we hope to overcome student's perceptions that water fountains are not available on campus. Outlining where they are located specifically in every building reduces students' barriers to change.

◆ Costs

- ◆ Costs will vary depending on the number of maps already available in buildings and the number of floors each building has. UBC currently has 64 buildings however, specific costs of production and placement of these navigational maps are unknown.

◆ Logistics

- ◆ Area maps should be located at the buildings entrance and at the top of all stairwells and elevators. Many buildings already have maps; in this case, our logo should simply be added to the existing map. These maps will be stuck to the wall and be easily understandable. In relation to water fountain signs, these should be placed perpendicular to the wall and very high (close to the ceiling) so students can see them easily at the end of a hallway.

◆ Risks

- ◆ There are no risks associated with this tactic.

◆ **Tactic 5: Water Fountain App**

- ◆ This tactic involves the creation of a UBC mobile app to aid students in navigating our large campus and locating water fountains. The App will be part of a current App that is being created by Common Energy. We are uncertain of the exact details of Common Energy's App, however we recommend the following additions to their App:

- ◆ UBC Wayfinding capability. Currently, UBC has a single campus wide map outlining where buildings are and how to get to them. This map is available online in PDF version. Students cannot navigate around the map or zoom into areas for greater detail. By turning this PDF file into a mobile App, students can navigate their campus more easily.
- ◆ A water fountain tab. This tab is separate from the UBC Wayfinding map, however, it allows students to locate the nearest water fountain to them wherever they are on campus.

◆ Goals

- ◆ Implementing this App will reduce student perceptions that water fountains are not readily available across campus. In addition, it will help them locate water fountains no matter where they are.

◆ Costs

- ◆ We assume Common Energy has already applied for and received funding for their mobile App. In addition, we are applying for the AMS Sustainability Fund to help finance our tactics and this money can go toward their App if needed.

◆ Logistics

- ◆ Exact logistics are unknown, however, we recommend implementing this app before the September 2014. The map must be easy to navigate and include zooming capabilities. The water fountain tab should allow students to type in their location on campus or within a building and the App will provide their closest water fountain.

◆ Risks

- ◆ The only risk associated with this tactic is that students are unaware of it and will not use it. To mitigate this, in previous tactics we have outlined that during Imagine Day and Jump Start we will introduce students to it. By doing so, word of mouth will help our message travel further. Additionally, by teaming up our water fountain App with a UBC campus App, we will earn more traffic to it.

Marketing Strategy #3: Participation

- ◆ **Strategy #3** - In line with our goal to increase the image and usage of available clean water resources on campus using sustainable marketing practices, the third stage in this social marketing plan is **to encourage Participation and Action**. After having raised awareness for the initiative and coordinated support of all sustainability-driven bodies on campus, whether faculty, staff, or student-led, stimulating participation from students on the UBC campus will be one way to change the behavior of students. This will also help forming the habit of bringing a reusable water bottle to campus on a daily basis and in spreading knowledge about the cleanliness of Vancouver's tap water resource.

- ◆ **Tactic 1: Green Tax**

- ◆ In many ways, people have been misguided in their consumer purchase experiences that alternatives that are more sustainable are perceived to be more expensive; external costs to the environment are not included in the purchasing cost of consumer goods. One suggested strategy to subdue this maligned cost versus benefit perception is to place a green tax on plastic water bottles that are sold on campus, whether they are in vending machines, food service outlets, or student residences. It has been found from our survey of the targeted student group on campus that a tax of \$0.50 will deter 41% of respondents from purchasing plastic water bottles (see Appendix 3 Question 6). Short of a water bottle ban or declaring UBC as a bottled water-free campus, this acts as an outward display of society's disapproval of the continued purchase and use of plastic water bottles, and demonstrates UBC's united support for the cause. An analysis of the success and failures of the green tax in other cities and campuses is also included in this report (see Appendix 11).

- ◆ Goals

- ◆ The green tax aims to deter those who are currently purchasing water bottles on campus at any frequency from continuing this practice. It is hoped that the tax will not only significantly reduce plastic water bottle purchases, but also encourage students to find other sources of water on campus (such as tap water) and become more knowledgeable about the negative consequences of plastic water bottles on the environment.

- ◆ Costs

- ◆ The costs associated with this tactic will be the lost revenue from plastic water bottle sales at the various food outlets and vending machines. Costs related to raising awareness for this strategy will be limited to some poster and signage printing costs, as most of the notification method will be online via email, the UBC website, and social media channels. There is a maximum estimated cost of \$500.00 to have signage at every food service outlet.

Marketing Strategy #3: Participation

- ◆ Logistics

- ◆ It is important to note that this strategy must be implemented after students, faculty, and staff are notified well in advance of the implementation date (at least 1 month campus-wide advertising and notices) to ensure that a smooth adjustment to this green tax can be achieved. Signage at all food outlets should specify the date that the new tax will be in effect, the reason for this tax, and exactly which items this tax will be applied on. Even if it slows the efficiency of food service outlets, it is also important to educate employees to a certain degree to ensure that accurate information is being distributed to customers and students.

- ◆ Risks

- ◆ A tax will always be a risk, especially on a university campus as students are known for having less disposable income and can afford fewer luxuries. However, this tax helps to balance the cost and benefit of plastic water bottles, and raise awareness for the amount of waste that is produced by the consumption of plastic water bottles. If a strong educational campaign becomes supplemental to this green tax, it is believed that the green tax will be effective yet not harmful for students' perceptions of campus administrative bodies. As there are free alternatives available, it is not a real risk. A potential risk will be the confusion of reasons behind the tax and the implementation schedule, so a heavy effort must be made to ensure that food service employees are properly educated and preferably even interested in participating in this initiative in such an active way. If it becomes a concern that employees are already very busy during the "rush hours" of lunch time, it is possible to send a "street team" to talk to customers while they are waiting in line ups or waiting for their food and take the burden off of UBC employees.

- ◆ **Tactic 2: Eco-To-Go**

- ◆ UBC currently runs an Eco-To-Go program, which reduces the usage and consumption of disposable food containers. A \$5 one-time fee is paid by "anyone who lives, works, or eats on campus" and a reusable container will be given to the client who can use the container to fill food at any food services location on campus (including the Vanier and Totem student residences' Dining Rooms). Then, they can drop the container off at any outlet after usage without cleaning the container. The containers are washed and sanitized by respective food outlets and membership cards are exchanged with containers to create a cyclical behavior. A tactic in this particular social marketing plan that can be explored with the Eco-To-Go program is to extend the program to include reusable water bottles.

- ◆ Goals

- ◆ To extend a program that is already known and successful on campus to include water bottles will be an easy way to ease the average student into using a reusable water bottle as opposed to purchasing a plastic water bottle. The program will also be easy to monitor and evaluate as there are membership cards that can be tracked for the initiative's purposes.

- ◆ Costs

- ◆ There are no direct costs to this tactic as the eco-to go program's \$5 fee covers the cost of the containers and, presumably, the reusable water bottles. Students are expected to pay a one-time fee of \$5 and this should not create a financial burden on any student.

Marketing Strategy #3: Participation

- ◆ Logistics

- ◆ Since Eco-To-Go is already in running, it should not be hard to implement an extension of the program to include reusable water bottles. Nevertheless, an awareness campaign must be implemented to ensure that students have the information and knowledge to enable them to actively participate in the program, knowing that they are choosing Eco-To-Go because it is less wasteful and an eco-conscious lifestyle choice. It is also important that the reusable water bottles are dishwasher-friendly, to avoid logistical problems with food service outlets and their employees.

- ◆ Risks

- ◆ It has been found from the project team's survey that nearly 50% of respondents stated that they would not use an Eco- To Go program if it included reusable water bottles – even if the program were free (see Appendix 3, Question 7a). Reasons behind this include cleanliness, hygienic concerns, and inconvenience (see Appendix 3, Question 7b). It will be difficult to demonstrate to students that all containers within the program are sanitized professionally, and as Eco-To-Go is currently only available at food service outlets, an inconvenience factor for water consumption is reasonable. Students cannot be expected to obtain their reusable water bottle from a food service outlet every time they want to have a drink of water.

- ◆ **Tactic 3: Keys Wallet Water Bottle**

- ◆ 'Keys Wallet Water Bottle' is a campaign created for this social marketing plan. The campaign will help students, especially those who live in student residences on campus, to remember to bring their water bottle to school with them everyday. Door stickers, bookmarks, and other advertising mediums will be used to ensure that student awareness about this campaign is extremely high. A prototype of this sticker can be seen in Appendix 8.

- ◆ Goal

- ◆ In response to the question "What prevents you from bringing a reusable bottle with you to campus?", which we asked to those who already indicated that they do not bring a reusable water bottle to campus frequently, the most commonly chosen answer was "Too hard to remember to bring my reusable water bottle" (35% of respondents). The goal of this 'Keys Wallet Water Bottle' campaign is to combat this problem, which is preventing 33% of total survey respondents from making the action of bringing a reusable water bottle to school a daily habit. With this tactic, participation is expected to become a norm for all students who live in UBC Housing residences.

- ◆ Costs

- ◆ There will be minimal costs associated with implementing this tactic, as materials are constrained to stickers and simple signage. The existing staff and management in student residences will encourage participation from residents therefore no additional costs will be formed. Printing costs will be approximately \$350 to supply all 8,000 UBC student residents with a single sticker.

- ◆ Logistics

- ◆ As the largest intake of students in UBC Housing occurs near the end of summer (designated move-in dates for Totem/Vanier), and this is also when students are oriented to life in various residences, 'Keys Wallet Water Bottle' should be included in welcome packages to students at this time. They should also be included in training modules for Residence Advisors and other staff. Stickers should already be on the exterior of dorm room doors and front desk staff should be prepared to answer questions about the initiative and its purpose to domestic and international students alike.

Marketing Strategy #3: Participation

- ◆ Risks

- ◆ There are little or no risks involved in this campaign as costs are low and student participation does not require excessive commitments or impose burdens on any parties. In terms of marketing this initiative, there is the risk of implementing this campaign without proper educational supplements to ensure that students are also knowingly supporting a greater environmental cause.

- ◆ **Tactic 4: Online Marketing**

- ◆ Any marketing plan nowadays is not complete without an online marketing strategy. The sheer reach and exposure of the internet and social media is enormous and a social marketing plan with an emphasis on providing prompts such as this one would benefit greatly from a well-executed and managed online marketing strategy. UBC Campus Sustainability website, Facebook page, Twitter account, and all other social media outlets need to be branded and “sold” to the audience for different purposes, to ensure that all channels are contributing to building UBC Campus Sustainability’s online presence. Any marketing materials created from other tactics under previous awareness and support strategies can also be broadcasted across all online multimedia channels. Social media outlets such as Facebook and Twitter can also empower the audience to make a change to their lifestyle with easy advice for environmental stewardship. It is important to also maintain a strong and consistent presence, but balance frequent posts with genuine interaction. Currently, the UBC Campus Sustainability Twitter account very actively posts tweets, but does not generate much traffic to featured links as tweets themselves sound like press releases and are scheduled. The “social” in social media is integral to successful execution of online marketing tools. Digital signage and screens can also be used in some technologically equipped buildings on the UBC campus.

- ◆ Goal

- ◆ The goal of all social media accounts and online marketing tools should be aligned to empower its audience, promote the cleanliness and drinkability of tap water available on the UBC campus, encourage consumption of free water on campus (effectively deterring people from the alternative that is purchasing plastic water bottles), and raise awareness for other environmental causes.

- ◆ Costs

- ◆ If managing social media channels are not the responsibility of anybody currently working for UBC Campus Sustainability, the organization should consider hiring a full time social media/online marketing manager who is passionate about the initiative. Possibly, Facebook ads can be a method to raise awareness for the initiative; since Facebook will only charge the company if the ad is clicked on, the costs for this venture are controlled.

- ◆ Logistics

- ◆ In terms of prioritizing tactics, online marketing is the easiest to implement immediately, and should be the first step as well as it will likely be easily shared among students to raise awareness for the campaign. Using social media accounts as the first method of providing announcements and updates will be a strategy in itself to engage the audience and sustain interest and interaction.

Marketing Strategy #3: Participation

- ◆ Risks

- ◆ When managing social media accounts and online marketing strategies, there are two key things to keep in mind constantly: audience and purpose. If the organization ever underestimates its audience with its content, the audience will easily lose interest and the level of engagement with the organization will not be ideal. Risks that are common with online marketers may include negative feedback from the public. The best way to mitigate such occasions as they arise is to swiftly address them in a transparent manner. Social media experts are valuable in the way they interact agreeably with everyone online, whether the audience has a similar perspective or opinion or not. Hiring the right person is influential to the overall success of UBC Campus Sustainability's online presence.

Eliminated Tactics

- ◆ From all the described tactics within this marketing plan's three proposed strategies of awareness, support, and participation, one tactic has been rejected and one is under consideration.
- ◆ Due to consumer concerns over hygiene, inconvenience, and perception of cleanliness (see Appendix 3 Question 7b) for extending the Eco- To Go program to include reusable water bottles, this tactic is rejected from the final plan. It will be difficult to modify the consumer perceptions against the cleanliness and hygienic factors that deter them from participating in this program extension. The program also presents an inconvenience for consumers because the availability of food service outlets where the Eco- To Go program are available is less than water fountains and other clean water sources. It would be much more inconvenient for the consumer to locate a food service outlet, redeem a reusable water bottle and then consume water.
- ◆ The blind water taste test is under consideration due to the risks of not being able to control results and answers from the population being tested. In fear of further reinforcing the test-taker's perception of bottled water's superiority over tap water if the test-taker identifies bottled water as the one that is preferred. While those administering the test can argue many facts against bottled water, this test result will not be contributive to the goal of changing perceptions of test-takers for tap water sources. It will be difficult to ensure that all factors being equal and controlled, test-takers will not accidentally choose the cup that holds bottled water, given that there is a 50% chance of doing so.
- ◆ The risks involved with these two tactics are sufficient to justify the plans to be rejected or placed on hold, while other tactics can be implemented within the proposed timeline.

- ◆ A large majority of our defined tactics are both low cost and volunteer based. In addition, students around UBC are eager to volunteer and become involved in sustainability initiatives. Therefore our projected costs are very low, at an optimistic total of \$6,741.34. However, an additional expense may be considered, in the form of hiring a Social Media and Marketing manager for UBC Sustainability. The average salary of an individual in this position is \$45,000 per annum, which would increase our projected costs to a conservative \$51,741.34. We have summarized the components of our financial projections in chart form, included in this report as Appendix 9.

Implementation Plan

- ◆ The majority of our strategies can be conducted by students and student organizations on campus. We chose to outline such strategies for three main reasons, the most significant being the costs saved by using student work. In addition, students themselves are most familiar with the interests and trends that are prevalent within the student body. As a result, campaigns are more likely to be effective and appealing to their peers. Lastly, it is an important aim of our project to promote collaboration between the many organizations around campus which support sustainable water consumption. We hope that by having a variety of student organizations work together, we will be able to consolidate campaign strategies and create a true, lasting impact on water consumption at UBC.

Timeline of Execution

- ◆ We hope to start off our strategy plan during the summer months. As we have already detailed a universal symbol for clean drinking water, we hope to see it discussed and approved by the end of May. During this time, we seek to form a social media team which will be responsible for all online communications, including the strategies detailed in our marketing plan. The members of this team will be elected at the discretion of this project's stakeholders, but must confirm long-term commitment to ensure the strategy's success. Before the beginning of the 2014 school term in September, this team must have developed numerous small, attention-grabbing campaigns creating buzz around Vancouver's clean water resources. Included in these campaigns are the poster and video series outlined in the Awareness segment of our plan.

- ◆ In light of these efforts, our social media team, in collaboration with this project's stakeholders, should reach out to active student clubs on campus to form a "Sustainability Alliance" of student and staff-based organizations. We believe that the greatest impact will be made when all concerned parties are focusing their efforts into a singular campaign. Therefore it is crucial that an alliance be formed to streamline everyone's promotional efforts and substantially penetrate our target market. These actions bring us into the Support stage of our marketing plan. This stage requires the most guidance from administrative bodies, as many of the desired actions cannot be completed without their approval. As the universal symbol should have been discussed and redesigned throughout the summer, we hope that it will be ready for introduction by late August or Early September. This is the best time period for the symbol to be introduced, as there will be plenty of new students and staff coming to UBC for the first time. UBC is a large campus, and these individuals will be constantly using both online and physical area maps. The large and consistent exposure to our universal symbol will increase both the rate of its acceptance and likelihood that individuals will actually remember where the fountains are located; even when they become engaged members of UBC's community.
- ◆ September is both the most active and most important month of our strategy plan. The September Blitz, including Imagine Day, Jump Start and Sustainability Week, will utilize awareness campaigns such as the Blind Water Taste Test and Keys, Wallet, Water Bottle Stickers. Here, it is important to note that the Awareness prong of our strategy plan does not have an intended phase-out date. Awareness strategies should be consistently used throughout Support and Participation stages, as we are always hoping to spread knowledge and gather interest surrounding the topic of water.
- ◆ Only after significant interest and support has been raised on sustainable water consumption, should the topic of a green tax be introduced to the student body. As the green tax is a form of negative reinforcement, it can in turn create a demotivated and unhappy atmosphere surrounding individuals purchase choices. We have anticipated that the topic of a green tax be raised in November or December, with actual implementation withheld until January. This will give individuals and chance to raise their concerns, and in turn give us a chance to mitigate them. The revenue streams resulting from this green tax will allow future, larger scale social strategies and campaigns to become feasible, creating a cycle of positive impact on our campus community.

Performance Measures

- ◆ **Awareness:** To measure the success of our Awareness campaigns, we suggest the redistribution of our survey, included as Appendix 3 in this report. We suggest that this redistribution be done six months subsequent to the release of the first promotional tactic. In this way, we will gain consumer generated insights to our campaign's results.
- ◆ **Support:** The success of our Support strategy is more tangible, as we will be able to directly count the number of signs/plaques used around campus. Additionally, logistics on the number and type of water bottles given away during Jump Start and Imagine Day can provide a rough measurement of both student and administrative reception to the strategy. These logistics will be especially valuable when used in comparison to the number of water bottles left behind in May of 2014 when students in residences move out.
- ◆ **Participation:** The measure of success in the Participation segment is similar to measures in the first two segments. We can measure the rate of increase of WaterFilz station use, or measure the rate of decrease of disposable water bottle sales. The change in reusable water bottles sales on campus will not be an accurate measure of success, as we have already affected sales negatively by providing all first year students with free own water bottles. Redistributing the survey will also allow us to measure the success of this segment in the number responses themselves. We will be able to see increased engagement if more individuals are willing to take our survey.

AMS Sustainability Fund

- ◆ We applied to AMS Funding at the end of March, requesting financial assistance for the clean drinking station signs, the stickers, and the posters we wish to implement. In the application, we informed the AMS of our goal to increase the use of tap water and decrease the purchases of plastic water bottles. We also mentioned that the team was formed under the SEEDS initiative and we have been working with the help of clients throughout campus including Campus Sustainability, AMS Sustainability, UBC Food and Beverages, and Student Housing and Hospitality. The team at AMS Sustainability and Sustainability Coordinator, Justin Ritchie, has since approved our funding application for up to \$5,350. Some conditions include that the plaques must be approved with UBC Plant Operations or Building Operations and in place within 60 days.

thank you to the following individuals for their support, guidance, and enthusiasm

- ◆ Bud Fraser
 - ◆ Water and Zero Waste Engineer | Campus & Community Planning

- ◆ Uli Laue
 - ◆ Director of Operations | AMS Food and Beverage Department

- ◆ Liska Richer
 - ◆ Project Coordinator | UBC SEEDS

- ◆ Justin Ritchie
 - ◆ Sustainability Coordinator | AMS Student Society of UBC Vancouver

- ◆ Jenna Singh
 - ◆ Sustainability Outreach Coordinator | AMS Student Society of UBC Vancouver

- ◆ Victoria Wakefield
 - ◆ Purchasing Manager | Student Housing & Hospitality Services

- ◆ American Beverage Association. (n.d.). *Deposits & taxes the beverage industry & beverage container deposits*. Retrieved from: <http://www.ameribev.org/environment/deposits--taxes/>
- ◆ Enrolment Services. (2012). *Enrolment statistics 2012/2013*. Retrieved from <http://www.calendar.ubc.ca/vancouver/index.cfm?page=appendix1>
- ◆ Farrar, D. (2012). *Ubc annual report on enrolment, 2012/2013*. Retrieved from [http://www.pair.ubc.ca/enrolment reports/2012 Enrolment Report.pdf](http://www.pair.ubc.ca/enrolment%20reports/2012%20Enrolment%20Report.pdf)
- ◆ Planning and Institutional Research UBC. (2011). *2009-2011 new to ubc (nubc) student survey*. Retrieved from [http://www.pair.ubc.ca/surveys/nubc/UBCV NUBC 2011 TRANSFER.pdf](http://www.pair.ubc.ca/surveys/nubc/UBCV%20NUBC%202011%20TRANSFER.pdf)
- ◆ Stanek, S. (2008, March 1). *Nation's first bottled water tax hits Chicagoans*. Retrieved From: <http://news.heartland.org/newspaper-article/2008/03/01/nations-first-bottled-water-tax-hits-chicagoans>
- ◆ Tappening.com. (2008). *Why not bottled water?*. Retrieved from: http://www.tappening.com/Why_Not_Bottled_Water
- ◆ UBC. (2009). *Ubc fact sheet - our place in the region*. Retrieved from [http://www.planning.ubc.ca/database/rte/files/UBC Fact Sheet_Oct 25 FINAL.pdf](http://www.planning.ubc.ca/database/rte/files/UBC%20Fact%20Sheet_Oct%2025%20FINAL.pdf)
- ◆ UBC Public Affairs. (2010). *Ubc facts and figures 2010/2011*. Retrieved from <http://www.publicaffairs.ubc.ca/services-for-media/ubc-facts-figures/>

Appendices



Faculty	Student Population
Arts	11,700
Graduate Studies	9,279
Science	6,840
Commerce	5,182
Nursing	4,621
Applied Science	4,023
Medicine	2,330
Kinesiology	2,112
Land and Food Systems	1,335
Education	1,200
Pharmaceutical	721
Forestry	682
Law	558
Dentistry	513

Appendix 1 – Faculty Breakdown

	APSC	ARTS	COMM	FRST	HKIN	LFS	SCIE	total
Helping others who are in difficulty	71%	78%	79%	59%	88%	76%	76%	76%
Improving my understanding of other countries and cultures	62%	85%	78%	64%	60%	70%	63%	74%
Adopting "green" practices to protect the environment	63%	72%	72%	75%	58%	80%	69%	70%
Being very well off financially	57%	61%	86%	67%	69%	74%	69%	66%
Developing a meaningful philosophy of life	61%	67%	64%	64%	58%	61%	57%	63%
Raising a family	61%	57%	70%	62%	73%	62%	61%	61%
Obtaining recognition from my colleagues for contributions to my special field	49%	61%	66%	54%	56%	47%	64%	58%
Becoming an authority in my field	54%	58%	68%	53%	52%	53%	63%	58%
Influencing social values	43%	56%	48%	47%	47%	51%	48%	50%
Helping to promote racial understanding	37%	53%	57%	42%	38%	53%	45%	48%
Becoming involved in programs to clean up the environment	41%	40%	48%	64%	29%	56%	48%	45%
Participating in a community action program	33%	45%	43%	47%	38%	51%	37%	42%
Becoming successful in a business of my own	32%	36%	83%	42%	29%	43%	38%	41%
Keeping up to date with political affairs	28%	50%	40%	26%	25%	28%	31%	38%
Becoming a community leader	31%	38%	44%	31%	40%	36%	29%	36%
Making a theoretical contribution to science	32%	16%	8%	24%	19%	34%	55%	27%
Writing original works (poems, novels, etc.)	6%	31%	21%	15%	6%	21%	16%	21%
Influencing the political structure	14%	27%	22%	20%	6%	13%	15%	20%
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	9%	26%	20%	13%	2%	21%	18%	19%
Creating artistic works (painting, sculpture, etc.)	10%	26%	11%	16%	4%	14%	20%	19%

Appendix 2 – UBC Study

Appendix 3 – Survey Results



90 responses

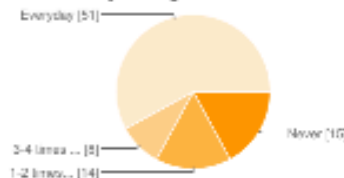
Summary [See complete responses](#) [Publish analytics](#)

1. How often do you purchase water bottles on campus?



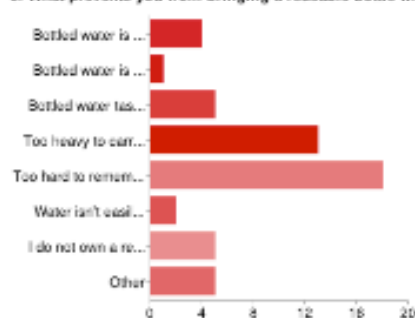
Never	76	87%
1-2 times a week	11	12%
3-4 times a week	1	1%
Everyday	0	0%

2. How often do you bring a reusable water bottle with you to campus?



Never	15	17%
1-2 times a week	14	16%
3-4 times a week	8	9%
Everyday	51	58%

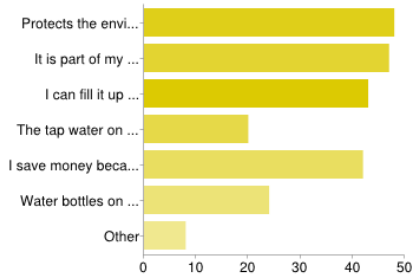
3. What prevents you from bringing a reusable bottle with you to campus?



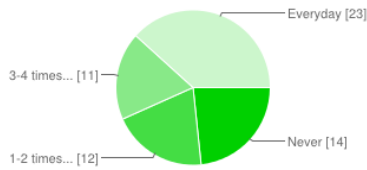
Bottled water is cleaner than water sources on campus	4	8%
Bottled water is healthier than water sources on campus	1	2%
Bottled water tastes better than water sources on campus	5	9%
Too heavy to carry around all day	13	25%
Too hard to remember to bring my reusable bottle	18	34%
Water isn't easily accessible on campus	2	4%
I do not own a reusable water bottle	5	9%
Other	5	9%

3. Why do you bring this reusable bottle to campus?

Protects the environment	48	21%
It is part of my daily routine	47	20%
I can fill it up easily on campus	43	19%
The tap water on campus is clean	20	9%
I save money because tap water is free	42	18%
Water bottles on campus are too expensive	24	10%
Other	8	3%

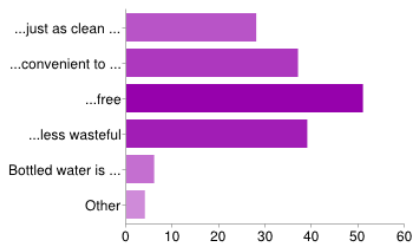


3a. How often do you refill your water bottle with tap water on campus?



Never	14	23%
1-2 times a week	12	20%
3-4 times a week	11	18%
Everyday	23	38%

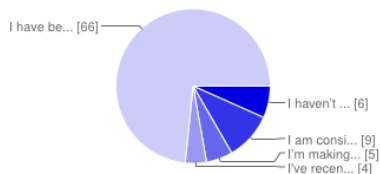
3b. In my opinion, tap water on campus is better than bottled water because it is...



...just as clean or cleaner	28	17%
...convenient to refill	37	22%
...free	51	31%
...less wasteful	39	24%
Bottled water is better	6	4%
Other	4	2%

Please continue..

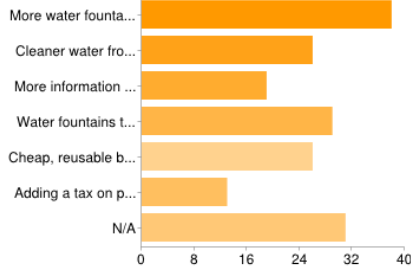
4. Which statement is closest to your current usage of a reusable water bottle?



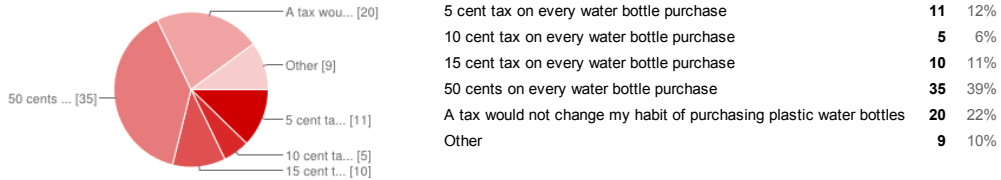
- I haven't considered bringing a reusable bottle
- I am considering bringing a bottle in the near future, I am open to the idea
- I'm making a plan to start by purchasing a reusable bottle, starting a routine, locating water fountains on campus
- I've recently begun to bring a reusable bottle to campus
- I have been bringing a reusable bottle for a while and plan to continue

5. Which of the following actions would most likely change your habits from water bottle purchases to bringing a reusable bottle?

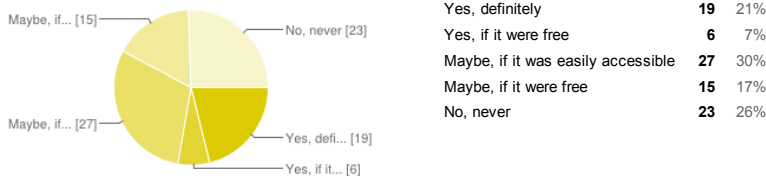
More water fountains on campus	38	21%
Cleaner water from campus fountains	26	14%
More information about the negative environmental impacts of plastic water bottles	19	10%
Water fountains that are better designed to refill reusable water bottles	29	16%
Cheap, reusable bottles available for purchase on campus	26	14%
Adding a tax on plastic water bottles purchases on campus	13	7%
N/A	31	17%



6. If a tax was to be placed on plastic water bottles, what amount would the tax need to be to deter you from future purchases?



7a. If an Eco-to-Go program was offered (where you could pay ONE TIME \$5 fee to pick up and use a refillable water bottle and drop it off to be washed, and grab a new one) would you use this program?



7b. If you selected no for Question 7a, what is the main reason why?

it doesnt make economic or environmental sense cleanliness Probably not, its just as easy to bring a water bottle yourself each day. Its kind of a weird idea I don't know if it would catch on or be worthwhile for the consumer and the producer. not hygienic If i had a refillable water bottle i wouldnt need to drop it off for someone else to wash it because its dirty hygiene Different preferences for water bottle. I can just bring my own; more sanitary It would be less hassle to wash the bottle myself than to go pick up a new bottle each time Prefer to drink from my own bottle its dirty! i dont have a problem bringing and washing my own bottle I can easily do it myself. It's not that much of a hassle that I would pay to do it. Hygiene concerns Don't want to share waterbottles hygiene I drink water directly from the fountain. I already have my own water bottle unsanitary, money could go elsewhere sanitary reasons It's not difficult just to bring my own and wash it at home myself. germaphobe brah

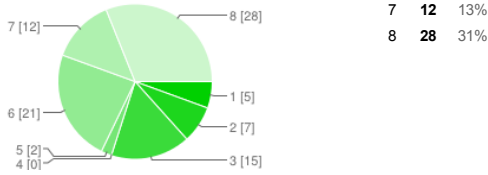
Please continue...

8. Please take a minute to look at the images here (<http://cl.ly/NUAc>) and answer "Done" in the text box below.

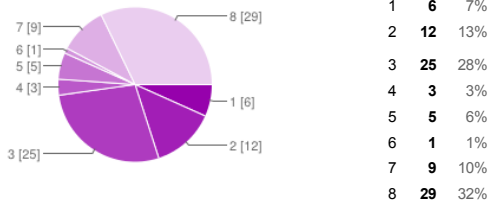
done Done DONE done
 Done Done Done Done. done Done Done Done done Done Done done Done Done done done done done Done Done Done done done Done

9. From the images you saw in the previous question, which logo do you think best represents 'Clean Drinking Water Here'?

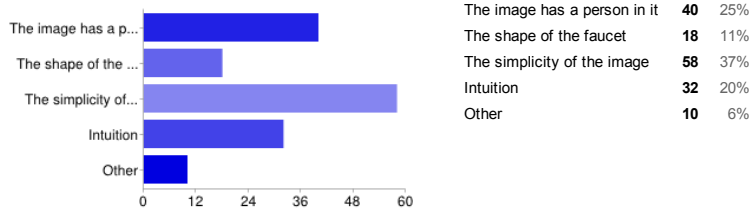
- 1 5 6%
- 2 7 8%
- 3 15 17%
- 4 0 0%
- 5 2 2%
- 6 21 23%



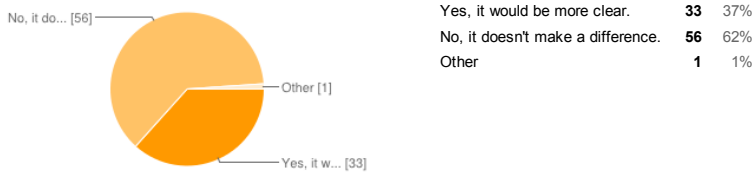
10. From the same set of images, which logo do you think is most universal?



11. Which of the following factors were most important to your answer choices for Questions 9 and 10?



12. Do you think it would be clearer for people to understand the image to mean 'Clean Drinking Water Here' if it was in colour?

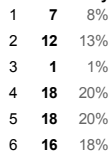


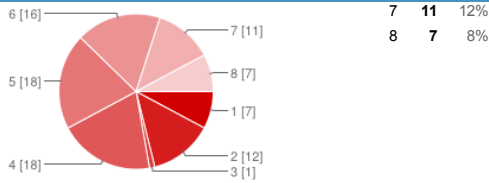
You're almost there!

13. Please take a minute to look at the images here (<http://cl.ly/NXyR>) and answer "Done" in the text box below.

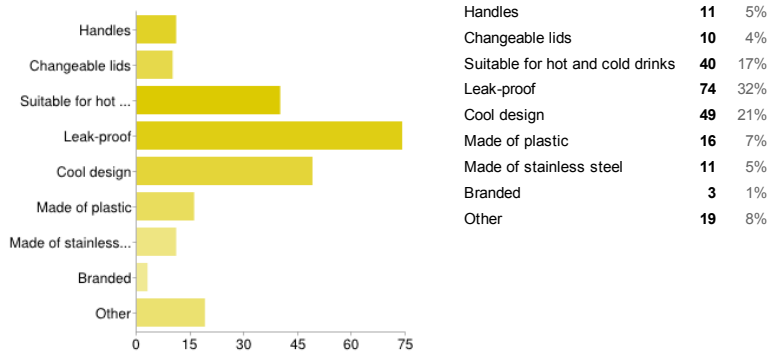
done Done DOne done
 done Done Done Done done Done Done Done done Done Done done Done Done done done done Done Done Done done done Do

14. If price was not a factor, which water bottle would you purchase for daily use?



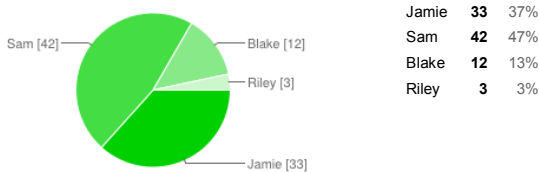


15. Which of the following aspects are most important to you when you are choosing a reusable water bottle?



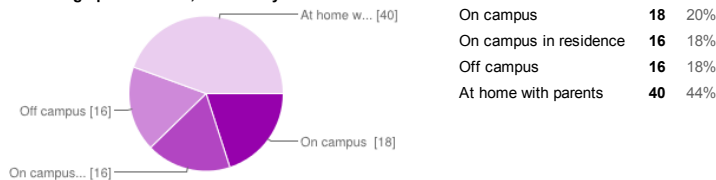
It looks long, but you're near the end!

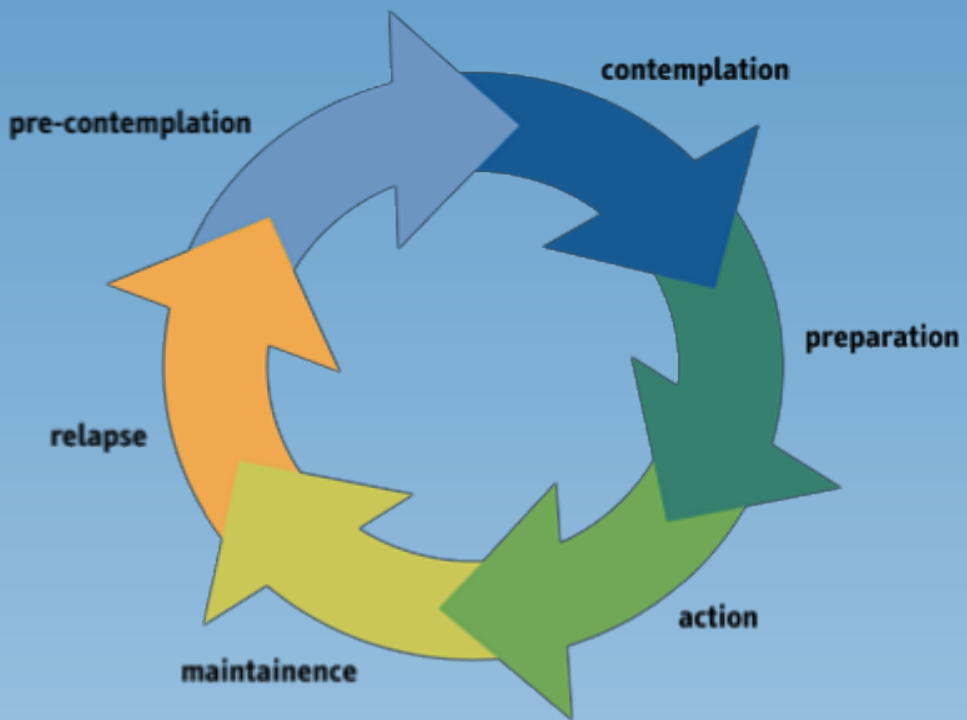
16. It's the time of year for Vancouver's annual Celebration of Light fireworks display. There are lots of people gathered at English Bay for the popular event. Jamie and friend Sam arrive with garbage bins and tongs, prepared to help the cleaning crew pick up garbage at the end of the night. Jamie thinks that it's important to recycle bottles and cans, but doesn't see the importance of cleaning the entire beach. Jamie is only following Sam's lead as Sam fears that what people leave behind will harm the wildlife and landscape in the neighbourhood. Blake works at the Concession and is worried about sorting the garbage into recycling and compost. Blake thinks it's a huge hassle and won't make a difference to fight global warming. Good thing the Concession gets a permit fee reduction for going through all this trouble. Riley is waiting in line at the Concession and frustrated by how long it is taking the worker to explain to customers how the reusable containers can be returned to the stand. "Who cares!", Riley grumbles.



Thank you!

For demographic reasons, where do you live?





Transtheoretical Model of Change
Prochaska & DiClemente

Appendix 4 – Transtheoretical Model

Phase	Title	Description	Example
1	Pre-contemplation	Consumer has not considered changing their behaviour.	Student has not considered a reusable water bottle and using tap water on campus.
2	Contemplation	Consumer is considering changing their behaviour in the near future; they are open to the idea.	Student has considered bringing a reusable water bottle and drinking tap water on campus.
3	Preparation	Consumer is making a plan to start the behaviour change.	Student is purchasing a reusable water bottle and locating water fountains on campus.
4	Action	Consumer is doing the desired behaviour and following their plan.	Student is bringing their water bottle to campus and refilling it using tap water.
5	Maintenance	Consumer is continuing desired behaviour over time. Ideal place for consumer to stay.	Student is still bringing reusable bottled and drinking tap water 6 months later.
6	Relapse	Consumer has stopped the behaviour.	Student has stopped bringing their water bottle and drinking tap water.

Appendix 4 – Transtheoretical Model

**PAYING
FOR
WATER**

is like paying for air

Appendix 5 – Poster 1

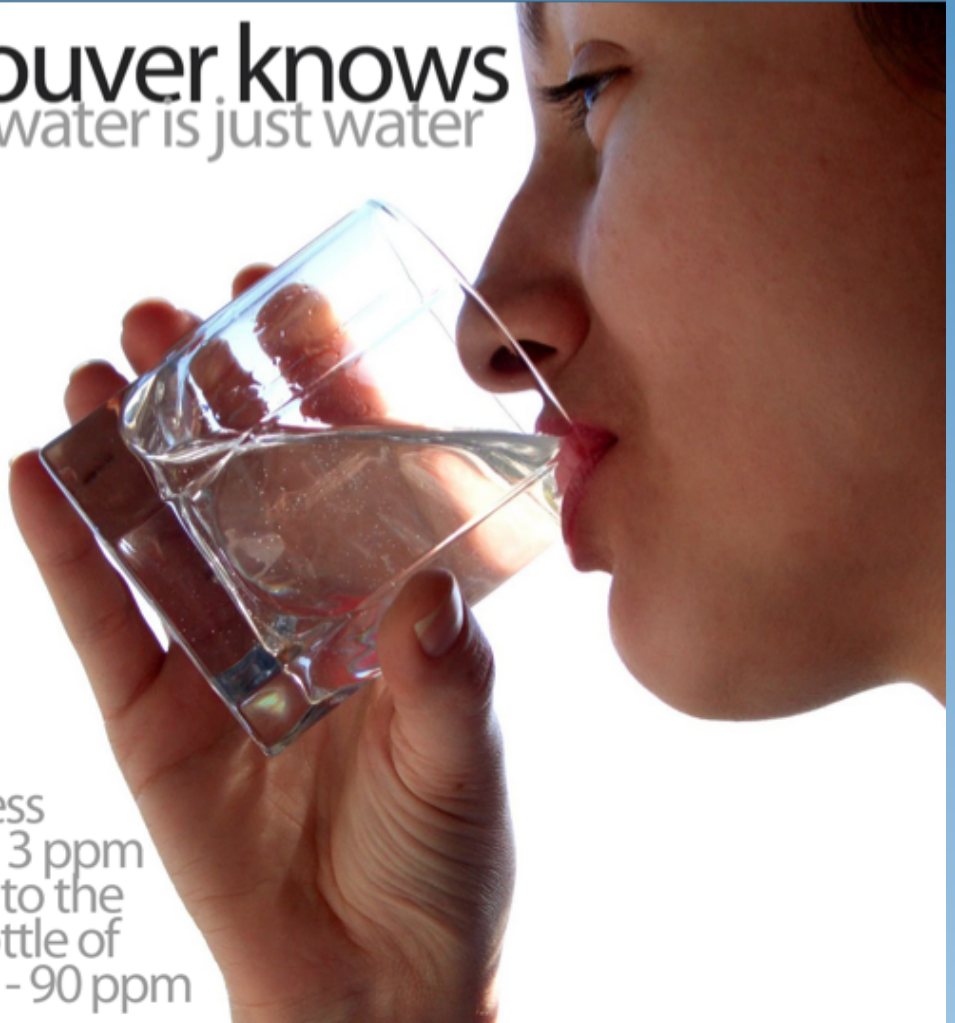
*Do you really
want to buy
another plastic
water bottle?*



SWITCH TO TAP

Appendix 5 – Poster 2

Vancouver knows
its tap water is just water



With softness
of less than 3 ppm
Compared to the
average bottle of
water at 60 - 90 ppm

Appendix 5 – Poster 3



Choosing tap over bottled water only 2 times will get you one ice cold beer.

Appendix 5 – Poster 4a



Choosing tap over bottled water 7 times will get you one Greyhound trip to Whistler.

Appendix 5 – Poster 4b



Choosing tap over bottled water 14 times will get you one NiteOwl Cypress alpine pass.

Appendix 5 – Poster 4c



Appendix 6 – Water Bottle Choices



Appendix 7 – Logo Choices

**DON'T FORGET YOUR...
KEYS, WALLET, WATERBOTTLE**



Appendix 8 – Keys Wallet Water Bottle
Sticker Prototype

Item/Service	Supplier	Cost	Quantity	Total	Additional Notes
Awareness					
Blind Water Taste Test*					<i>*Per Event</i>
Cups	Costco	\$11.49	1*	\$11.49	<i>*Set of 360</i>
Filtered Water	Canadian Springs	\$4.85	5	\$4.85	
Poster Campaigns					
Printing*	Made In Print	\$100.00	500	\$100.00	<i>*Sponsored Pricing</i>
Design	Volunteer	N/A	4	N/A	
Video Series					
Film & Edit	Volunteer	N/A	4	N/A	
Support					
Sustainability Week					
KWW Stickers	TBD	\$125.00	300	\$125.00	
Imagine Day & Jump Start					
Water Bottles	TBD	\$0.60 - \$2.50*	6000	\$6,000.00	<i>*Cost per Bottle</i>
Area Map Improvement*					<i>*Quantity estimated at one per building</i>
Printing	Building Specific	Unknown	64	Unknown	
Installation	Building Specific	Unknown	64	Unknown	
Plaques and Signs*					<i>* Undergoing application for AMS Funding</i>
Printing	Building Specific	Unknown	x	Unknown	<i>If approved, will be fully subsidized</i>
Installation	Building Specific	Unknown	x	Unknown	
Mobile Water Fountain Application					
Development	Common Energy UBC*	N/A	N/A	None	<i>*Undertaken by CEUBC (costs covered)</i>
Participation					
Green Tax					
Advertisement	N/A	\$500.00	N/A	\$500.00	
Eco-To-Go Program					
Advertisement	N/A	\$350.00	8000	\$350.00	<i>*Not included in total</i>
Social Media Campaigns					
Media Manager*	N/A	\$45,000.00	Annual	\$45,000.00	<i>*Manager Optional</i>
<i>Grand Total</i>				\$ 51,741.34	

Appendix 9 – Financial Projections

	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Universal Symbol Approval Period	█											
Form Social Media Team	█	█										
Design Print Materials	█	█	█	█								
Create Video Series		█	█	█				█	█	█		
Form "Sustainability Alliance"		█	█	█	█							
Online Marketing			█	█	█	█	█	█	█	█	█	█
Misc. Small-Scale Campaigns			█	█	█	█	█	█	█	█	█	█
Introduction of Universal Symbol				█	█							
September Blitz					█							
Blind Water Taste Test					█						█	
KWW Campaign					█	█	█	█	█	█	█	█
Support App Development						█	█					
Train Food Services Employees on Green Tax								█	█			
Anticipated App Launch									█	█		
Introduction of Green Tax									█	█	█	█

Appendix 10 – Proposed Timeline

According to the American Beverage Association, the states of Arkansas, West Virginia, Washington and the city of Chicago currently have taxes in place on non-alcoholic beverages, including bottled water (American Beverage Association). These taxes have been met with mixed public reactions. Many residents of these states believe that beverage taxes are 'a poor way for governments to raise revenues' (American Beverage Association). Residents also believe taxing beverages is an 'anti-business' practice that harms suppliers and retailers through increased costs (American Beverage Association). However, environmentalists believe reducing water bottle consumption is a vital step in sustainable practices and a great alternative to recycling as studies show less than 20% of water bottles in the United States are recycled correctly (Tappening.com, 2008).

In particular, the city of Chicago has managed to raise over \$10.5 million annually through their \$0.05 water bottle tax (Stanek, 2008). This tax is implemented on all water bottles sold within the city borders. These tax revenues are used to better water infrastructure and sewer systems within the city. The behaviour changes toward water bottle consumption are still being monitored, however, favorable results are expected.

We expect our green tax of \$0.50 to change student behaviour patterns to consume less bottle water and encourage more reusable bottle usage. As our survey states, \$0.50 is the tax rate that would give students an incentive to change behaviour and discontinue water bottle purchasing. We believe that \$0.50 will have a greater impact on behaviour change than current practices in the USA charging \$0.05 per bottle.

Additionally, our green tax is being used in conjunction with a myriad of other tactics including poster campaigns, logos, campus signs and a mobile app. As a result, we expect to see water bottle purchases at UBC decrease substantially as all these tactics work side by side providing a single consistent message.

Appendix 11 – Green Tax Analysis