

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

**UBC Food System Project 2006: Scenario 6 University Boulevard Neighbourhood:
Strategies for Food System Sustainability**

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Faculty of Land and Food Systems
Grounded in Science | Global in Scope

UBC Food System Project 2006: Scenario 6

University Boulevard Neighbourhood: Strategies for Food System Sustainability

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Abstract

As fourth year students in the Faculty of Land and Food Systems, we are taking part in the University of British Columbia Food Systems Project (UBCFSP), an ongoing project that investigates and evaluates the sustainability of the UBC food system. This paper focuses its investigations on the sustainability of the food system in the University Boulevard Neighbourhood in relationship to the UBC Farm as a local food system. Although University Boulevard is in preliminary stages of construction, we intend to assess any possible relationships that they may have and how they can work together to promote and maintain food system sustainability. Next, we propose recommendations to promote and ensure that the food system in this particular area is sustainable and secured. These recommendations are based on the analysis of environmental education, community shuttles, waste management, seasonal festivals, and University Square kiosks. As part of our project we have been asked to research the concept and implementation of Eco-villages to determine whether the strategies used in Eco-villages will be applicable to the University Boulevard Neighbourhood. We will begin our evaluation by outlining the key components of a sustainable food system via the use of models as inspiration and vehicles for change, the strategies, policies involved, and the challenges that may hinder the sustainability of this food system.

UNIVERSITY BOULEVARD NEIGHBOURHOOD

Introduction

Scenario 6 of the UBCFSP addresses the sustainability of the food system in the University Boulevard Neighbourhood (UBN) of the University Town development. It is essential that this neighbourhood and all of University Town uphold the University of British Columbia's (UBC) vision of sustainability. Upon collaboration with other Scenario 6 groups in the UBCFSP, it was decided that four major components of food system sustainability must be addressed (See Appendix I). These components include the development of an overarching food sustainability policy, community connections with food, assessment of criteria for retail food outlets destined for UBN, and connections between UBN and the local food system. The latter will be the focus of this paper.

UBC can be thought of as a small scale representation of a larger system, where neighbourhoods represent communities and the UBC Farm represents the local food system. For a food system to be fully sustainable it must be connected to its roots - the local food system. UBC farm is that connection. The importance of knowing where food comes from is crucial because food not only nourishes us but it supports us economically and connects us socially. The health of the food system is dependent on its sustainability. The UBC Farm alone will not make UBN self-sustaining; however, showcasing the farm and giving it a public face will help residents, students, and visitors make the connection between food, its origin, and the

importance of supporting local agriculture to the health of *our* environment, community, and economy.

This paper will explore the possible significance of forging a connection between UBN and UBC Farm to the overall sustainability of the food system. This will be accomplished by taking a closer look at the UBN and the policies governing its development and by examining the concept of an Eco-village and its role as a model for community sustainability. This will be followed by a proposed strategy to connect UBC Farm to the UBN with the ultimate goal of increasing food literacy and ensuring the development of a sustainable local food system.

Problem Statement

The UBC campus is undergoing a massive change. Construction of new academic buildings and residential communities are either in the planning or development stages. University Town is one of these major projects under development and upon completion will encompass amenities, schools, community centres and eight compact neighbourhoods, one of which includes the UBN (What is University Town?). UBC promotes University Town as a socially, economically, and ecologically sustainable community where amenities are close and reliance on vehicles minimized. The sustainability of the food system, however, is not mentioned as a component of this sustainable system nor is it mentioned in the Official Community Plan (OCP), Comprehensive Community Plan (CPP), or Neighbourhood Plans – documents critical in the development of UBC's new communities (Planning Documents). For a system to be truly sustainable, all sub-systems within it, including the food system, must also be sustainable.

Group Reflections on Vision Statement

In the collaborative opinion of our group, the vision statement for food system sustainability is more easily understood and relevant upon reading the plain language version. There were no differing views among group members. We feel that the *Seven Guiding Principles* may be readily implemented in the future if the appropriate steps are developed and applied. We agree that we have a biased opinion regarding the guiding principles because of the knowledge that we have obtained as students of the Faculty of Land and Food Systems. Nevertheless, we view this knowledge as a positive asset to the UBCFSP, and to life in general. Our value assumptions influence our views in that we value the importance of the food system

including the safety, accessibility, and sustainability of the local and global food system, for all food systems are inevitably connected.

Methodology

The task given to Scenario 6 groups was to develop a strategy for food system sustainability for the UBN in University Town – a task which would require a broad range of topics to be covered. As such, it was collaboratively decided that the four groups assigned to Scenario 6 would separate the scenario to minimize overlapping and maximize the level of detail. Group 1 is responsible for the connections between University Boulevard Neighbourhood and the UBC farm. Group 7 will be assessing and developing criteria for retail food outlets within UBN. Group 21 will examine how to incorporate the University Neighbourhoods Association into developing a sustainable food system. Finally, Group 26 will be responsible for the policies governing the local food system.

In the preliminary stages of this study, our group researched general background information needed to familiarize ourselves with the project. This information included the concept of Eco-villages, University Town, UBN, and policies. The next step was to begin executing more detailed research. Since our group is responsible for connecting the UBC Farm with the UBN, we researched UBC farm and environmental education strategies in order to be able to effectively educate the residents of the UBN about the importance of a sustainable food system. To connect UBC Farm to UBN we developed and researched several initiatives including developing UBC Farm kiosks and festivals in UBN as well as transportation and waste management.

During the course of our research, we looked at important documents including the UBC Official Community Plan (OCP, 1997), the UBC Comprehensive Community Plan (CCP, 2000), the University Boulevard Neighbourhood Plan (UBNP, 2001), and the Leadership in Environmental and Energy Design (LEED, 2006). After extensive researching, there are still many questions left unanswered. As a result, we contacted key stakeholders that could be of use to our research. Stakeholders included Mark Bomford (UBC Farm), Joe Stott (Campus & Community Planning), Linda Moore (AD External & Legal Affairs for the University Town Office), and Heather Friesen (Sustainability (recycling) Committee, University Neighbourhoods Association).

DISCUSSION AND FINDINGS

The University Boulevard Neighbourhood

As part of the University Town development, the future UBN will play a key role in linking the campus communities, residents, and students and will forge a connection between academic and non-academic life (What is University Town?). Slated for completion in 2008, UBN will be located on University Boulevard between Westbrook Mall and East Mall and is envisioned as being the main social hub of the campus, a mecca for residents, students, and visitors (See Appendix II) (UBC External Affairs 3; University Boulevard Neighbourhood Plan [UBNP] 5). The area will house the new underground transit loop making it the first place many will encounter when arriving at UBC (UBNP 13). UBN will also include a roofed public square, called University Square, which will serve as a gathering point where shops and kiosks will be located (UBNP 6). The boulevard will be lined with trees in a *greenway* and will have five storey buildings which will include both retail shops and mixed-market housing (UBNP 4). Commercial space has been restricted to the first two levels of the University Boulevard buildings, leaving the remaining three levels for the 326 housing units proposed for the neighbourhood (UBNP 7). In addition to being the epicentre of campus activity, UBN will also strive to be a sustainable community. Sustainability will be obtained by the creation of an environmentally conscious community which includes the development of a compact, pedestrian-friendly neighbourhood where nearby amenities serve residents and reduce vehicular dependence (Building a Sustainable Community; UNBP 9-11). All buildings will be designed to comply with LEED standards and must meet or exceed a LEED Silver rating (UNBP 24). Ensuring that all buildings comply with a minimum of LEED Silver will guarantee to minimize UBN's ecological footprint by reducing consumption of resources, including energy, water and building materials (Leadership in Energy and Environmental Design).

In 1997, sustainability at UBC was brought to the forefront with the implementation of the Sustainable Development Policy (Building a Sustainable Community). As such, all campus development, including UBN must be economically, socially and ecologically sustainable (UBC Sustainability Office). Since its inception in 1997, the Sustainable Development Policy has been followed by the creation of planning documents which govern all new campus development, including the OCP, CCP, and Neighbourhood Plans (Planning Documents). The OCP is a legal document based on the Greater Vancouver Regional District's (GVRD) *Liveable Region*

Strategic Plan and is comprised of objectives which will direct all development on UBC and Pacific Spirit Regional Park until 2021 (Campus and Community Planning). These objectives include conserving green space, reducing reliance on single occupancy vehicles, and developing complete and compact communities with the overarching goal of achieving sustainability within the UBC campus (GVRD Policy and Planning Department 1-2). The CCP is a more specific document developed by UBC using the objectives set by the OCP in conjunction with other UBC documents (Trek 2000, 1992 Main Campus Plan, Principles for Physical Planning at UBC, and Strategic Transportation Plan) to plan campus development (UBC Comprehensive Community Plan [CCP] 1-5). The OCP and CCP are both used to formulate the even more detailed Neighbourhood Plans, including the University Boulevard Neighbourhood Plan (UBNP). Each Neighbourhood Plan provides more specific details regarding building, transportation, green space, and land use requirements (UBC CCP 2).

The UBNP was adopted by the UBC Board of Governors on January 29, 2004 and is currently in the early stages of development (University Boulevard). The planning objectives outlined in the UBNP include the development of a community that not only serves the UBN residents but also the UBC community as a whole. UBN aims to reduce the use of single occupancy vehicles by 20% by being a public-transit “hub” and by encouraging the development of pedestrian and cyclist friendly routes (UBNP 8). The physical layout of the neighbourhood will be such that courtyards and green spaces will be encouraged alongside the mixed-use commercial, residential, and intuitional buildings. The UBNP also aims to create a vibrant, lively community neighbourhood with year-round activities for both residents and visitors to partake (UBNP 3-4).

Although the OCP, CCP and UBNP are fairly comprehensive with respect to the planning and development of UBN, they fail to include issues related to food system, specifically that of a sustainable food system. Although there is no ultimate definition of a ‘sustainable food system’, there is a general consensus that it must promote responsible agricultural practices, reduce environmental damage, minimize transportation by the promotion of regional foods, foster close relationships between consumers and producers, and finally reduce landfill waste by returning composted organic materials to the land (Long 4; Hamm & Baron 12). Essentially, a ‘sustainable food system’ is a closed looped system that is food secure not just for the present day but for generations to come (Anderson & Cook 142; Masi).

Are Eco-villages the Answer?

At this time North America is experiencing a vast amount of natural resource depletion and environmental degradation due to its lofty and sometimes unnecessary consumption of non-renewable resources (United Nations Environment Programme 10). The majority of environmental damage can be traced back to the daily activities of humans, including transportation, food production, and household fuel and electricity use (Tobin 18-19). Together, these three factors contribute 79% of total greenhouse gases and 80% of toxic air pollution (Tobin 18-19). As a result of growing concerns with the current state of the environment, some individuals have chosen to step away from the conventional way of living and move towards the more sustainable, ecologically friendly Eco-villages. Eco-villages are communities which aim to reduce their ecological footprint by minimizing use of energy and non-renewable resources (What is an Eco-village?). Unlike the definition of sustainability used by UBC, Eco-villages consider the food system as a major component of the overall sustainability of a community (Local Food Supply). Several aspects of agriculture and food consumption are noted as major design goals of Eco-villages including increased accessibility and availability of regional, organic, and responsibly harvested foods (Tobin 18-19). Food scraps should be composted in order to nourish the land from which they came, thereby creating a closed-loop system (Masi).

As the majority of Eco-villages are located in rural environments, many of the initiatives and ideas provided by the Global Eco-village Network are not suitable or transferable to UBN. There are, however, some examples of urban Eco-villages which are more relevant to the focus of this scenario. One such example is Northey Street City Farm in Brisbane, Australia where a one-hectare city park was converted into a farm to promote agricultural education, awareness, and food system sustainability (Gamble & Raymond). The farm organically cultivates indigenous crops (fruits, vegetables, herbs, and nuts) and works with local aboriginals to utilize indigenous food and knowledge (Gamble & Raymond). The Northey Street City Farm is visited by school children, organizations, and individual community members and is also used by university students for practical experience (Gamble & Raymond). The food produced on the farm is distributed among volunteers and sold within the community. The profit generated is fed back into the community as donations to sustain community development projects (Gamble & Raymond). Initiatives underway at the Northey Street City Farm include an organic farmers market, an edible plant nursery, and a community composting center (Gamble & Raymond).

The farm has not only made progress within the local food system by educating and exciting its citizens about local, organic agriculture but it has also stemmed initiatives beyond the farm including creek clean up, forest rehabilitation, anti-GMO campaigns and a sustainable living festival (Gamble & Raymond).

The Northey Street City Farm demonstrates how urban agriculture can be utilized to indirectly foster the sustainability of a local food system by providing education and food literacy to its citizens. It is not feasible for many urban communities including UBN to be self-reliant and cultivate the majority of its own food, an initiative promoted by many Eco-villages. It is, however, feasible for UBN to use the Northey Street City Farm as an example of how to promote a sustainable food system within a community. Due to its close and convenient location, UBC Farm can be utilized by the UBN in a similar fashion to that of the Northey Street City Farm.

UBC Farm

The UBC Farm, which resides on South Campus Road, is a research and education oriented community farm that promotes sustainability and awareness of agriculture, forestry, and food systems. The development of the UBC Farm is a collective effort of students, staff, faculty, and local residents. While UBC Farm is involved in the curriculum of many university courses and several internships, there are also a number of programs that allow non-UBC students to experience all of the opportunities it has to offer, including school field trips, summer camps, and a community garden (UBC Farm 2006).

Volunteering on the UBC farm is welcomed. It not only provides help on the farm during growing seasons, but also allows the community to become involved and learn about the things being done on the farm. One of the volunteering positions available is the Saturday Markets where in-season fresh produce grown in the market garden is sold to three local restaurants. In the future, UBC Farm is planning to develop a community garden for the university in hopes that the community garden will be able to meet not only the community's interest, but also the university's interest as an important educational tool (UBC Farm 2006).

There are many similarities between UBC Farm and Northey Street City Farm in that their urban location is used as an avenue to educate citizens about the local food system. However, the Northey Street City Farm, unlike UBC Farm has been able to connect with the surrounding community as a whole and affect large change. It is clear that the UBN community

will benefit from being connected with UBC Farm just as the citizens of Brisbane have with the inclusion of the Farm and its many initiatives into their community.

RECOMMENDATIONS

The following recommendations are designed to connect UBC Farm with UBN to bring awareness of the local food system to the community. The timeline for the proposed recommendation is quite general, as development of UBN is still in progress. It is our hope, however, that the following recommendations be implemented by at least 2010, two years after UBN is slated for completion (UBC External Affairs 3).

Education

Education is paramount in allowing the environment to achieve the attention it deserves as well as generating a new ethic in individuals. It is the *Belgrade Charter* of 1976 that built on the recommendation of the *Stockholm Conference* of 1972 to develop environmental education programs to tackle an ever-growing environmental crisis (Belgrade 2; UNEP sec. 2). The goal of the *Belgrade Charter*, a joint effort of the UNESCO and the UNEP, was simply:

To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivation and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones. (Belgrade 3)

With this draft set in place, the *Tbilisi Declaration* of 1977, another endeavour of the UNESCO and the UNEP, was developed, building on the goal of the *Belgrade Charter* to put forth a set of goals for environmental education:

- (a) to foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- (b) to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment;
- (c) to create new patterns of behaviour of individuals, groups, and society as a whole towards the environment. (Tbilisi 26)

The goals of these two founding drafts for environmental education formed a set of objectives in the education for a new environmental ethic. These objectives include awareness, knowledge, attitudes, participation, evaluation and analysis skills, and personal and civic responsibility (Tbilisi 26-27; Thomson 30).

These goals and objectives clearly apply to the UBC Farm and its potential role in the UBC Campus and the UBN. With the Farm as a medium for environmental education, awareness of the food system and its effects on the environment, society, and economy may be presented to UBN residents. Aside from increasing awareness of the food system, increasing awareness of the existence of the Farm alone is a great strength in itself.

In the City of Vancouver and the GVRD, given the proximity of the municipalities to natural ecosystems, such as the ocean, rivers, mountains, forests, and a peat bog in the middle of an urban zone, a general sense of environmental awareness has already been fostered within the residents. With a great recycling and composting program already in place, and backed by the GVRD and especially by the UBC Campus, awareness of the food system is surely the next step to take towards environmental education.

Despite the promising outlook of the strengths of a potential UBC Farm educational program, several weaknesses in the prospect of education may hinder the process. Disinterest is a major concern when any type of message is attempting to be conveyed. On the opposite end of disinterest is the matter of conveying the appropriate messages to the target audience without coming off too strongly or even upsetting certain individuals, organizations, or special interest groups.

Aside from the concern of conveying messages, the issue of cost and funding is with any proposed program. The questions associated with the UBC Farm include:

- 1) How much will an educational endeavour cost,
- 2) Who will fund this endeavour, and
- 3) Will the Farm be able to financially sustain this program through the generated revenues in the future?

Clearly, awareness is the first step in environmental education to elicit a reaction, change in attitudes, and ultimately achieve environmental literacy. As a result, our proposal for environmental education towards food sustainability in the UBN and the UBC Farm start with awareness and includes four elements:

- 1) Public transportation to and from the University Boulevard and the UBC Farm,
- 2) A community and commercial relationship between the UBC Farm and UBC Waste Management to reduce, reuse, and recycle organic and compost waste,

- 3) Kiosks in the heart of the University Boulevard at University Square will serve as a primary community-wide educational pitch hidden in the commercialization of UBC Farm and Farm endorsed goods and services, and
- 4) Festivals in the streets and courtyards of University Boulevard Neighbourhood to bring the community and Farm together in the spirit of fun, togetherness and awareness

Community Shuttle

Transportation plays an indispensable role in supporting the sustainability of University Boulevard, particularly in its relationship with the UBC Farm. The 'isolated' south campus location of UBC Farm can be an obstacle for people wishing to visit. In addition to increasing awareness about the existence of UBC Farm, community shuttles will help in promoting it by providing convenient and reliable transportation between University Boulevard and UBC Farm.

Currently, UBC Parking and Access Control Services provide UBC Campus Shuttle Services. There are four routes available: South Campus Route, Stadium Route, Night Route, and Weekend Day Route (UBC Parking & Access Control, 2006). A 2006 Summer Shuttle will be offered by the same party, but Weekend Day Route will be the only choice during the summer period. At this time, only one vehicle is used, which is scheduled every 30 minutes, day and night (UBC Parking & Access Control, 2006).

In September 2006, UBC, TransLink and Coast Mountain Bus Company are planning to run a Community Shuttle Program (UBC TREK Program Centre 2006). In the June 2005 Vancouver/UBC Area Transit Plan, UBC Community Shuttle was proposed as a service priority due to increased demand to provide accessible community transport (UBC TREK Program Centre, 2006). Mini diesel buses, with the capacity of up to 24 passengers and 2 passengers in wheelchairs, will provide access to areas that are not covered by the current regular transit service at UBC (UBC TREK Program Centre 2006).

There are two routes proposed (See Appendix III). The first route, Totem Park and Marine Drive, will cover the west side of campus including Totem Park, the Botanical Gardens, Nitobe Gardens, the Museum of Anthropology, and the Chan Centre (UBC TREK Program Centre, 2005). Meanwhile, the second route, Hampton Place and Acadia Park, will cover the east side of campus (UBC TREK Program Centre 2006). Both routes are planned to run every 30 minutes starting as early as 7 am during weekdays, with the first route operating until

midnight and the second route until 7 pm (UBC TREK Program Centre, 2006). Both routes will also operate on Saturday, Sunday, and Holidays (UBC TREK Program Centre, 2006).

Unfortunately, none of the existing or proposed routes provide convenient access to UBC Farm. As a result, it is recommended that modifications be made to one and/or both of the existing routes to include services to or close to UBC Farm beginning September 2006 in order to increase awareness of and provide easy access to the Farm. In addition to the routes, it is also recommended that alternative fuel and natural gas vehicles be used to maintain the sustainability paradigm. Key stakeholders that need to be included in this modification include UBC TREK Program Centre, TransLink, and Coast Mountain Bus Company. With the future development of South Campus, a public transportation route is essential. This route will not only connect the residents of UBN to UBC Farm, but will also serve to connect the future South Campus residents to the services of UBN.

Waste Management

A good waste management program is an important part of a sustainable food system. The system should include both a recycling and an organic compost program. The recycling program will accept cans, bottles, and plastic waste, while the organic compost program will generate organic fertilizer from pre- and post-consumer food waste. A good organic compost system will decrease waste by more than one third (Composting 2005). It is important for UBN to adopt a good waste management program and currently the University Neighbourhoods Association (UNA) is in the early stages of developing a Universal Recycling Program (Friesen). At present, the Universal Recycling Program is separate from UBC Waste Management; however, once the program is fully developed, UBC waste management could be contracted out to manage this project.

The strength of having a waste management program is that it will generate a closed loop system within UBC and help promote sustainability. Organic waste materials can be composted at the South Campus composting facility which has an in-vessel composter with the capacity to eliminate 95 round-trip truckloads of waste each year (Guide to Organics Collection). According to Heather Friesen of the UNA Sustainability Committee, the facility is only working at 50% capacity indicating that there is the potential for the facility to process more organic waste, including that of UBN. The products generated by the composter can be used at UBC Botanical Gardens, UBC Farm, and campus ground as rich condition fertilizers. This will benefit the farm

and gardens, while closing the cycle. Furthermore, the organic waste collected will only need 14 days to be fully composted and produces no odours (UBC Public Affairs).

The weakness of having a waste management program is that there will be a high cost of implementing it. According to Rachel So, the Communication Coordinator of UBC waste management, the UBN is not a part of the core-funding buildings on campus and the program does not receive funding from the General Operating Fund, therefore there will be a cost associated with pick-up. They are currently charging \$3 per bin per visit. Although the UNA are currently providing newsletters to educate residents, some residences do not read it, or a language barrier prevents the comprehension of materials (Friesen). There may also be a problem of contamination in the organic waste collection bin. This occurs especially when non-organic material such as plastic is mixed in with organic materials entangling in the composting machinery and contaminating the compost (Guide to Organics Collection).

University Square Kiosks

Another initiative to connect UBN to the UBC Farm may be through the development of farm kiosks in the UBN, from which UBC farm produce would be sold. The UBNP states that street vending/commercial kiosks shall be encouraged as they create a lively atmosphere and add to the quality of the street. In the design of the streets, plazas, and squares, provision has been made for the servicing of the needs of the special events and activities with electrical power and water connections (UBNP 22). At these farm kiosks, residents of the UBC community will be able to purchase fresh produce. In addition, the public will have access to tools such as educational flyers from the kiosks providing recipes and information on local suppliers including the UBC farm. Through these methods, local residents and visitors will have an increased awareness of the farm and the local food system. These farm kiosks will be staffed by volunteers such as UBC students and community volunteers. Due to seasonal changes in crop availability, the kiosks are only able to sell seasonal produce, grown and harvested at the farm in the summer and fall. Thus, the kiosks will remain a seasonal business in order to maintain the quality, promotion, and accessibility of the local UBC farm produce.

The costs of establishing a permanent retail location can be expensive. Prices for a kiosk range from approximately \$2,000 to \$10,000, if bought commercially; however, kiosks may be made non-commercially which will cut costs (How to Start a Kiosk Business).

The University of British Columbia has a policy (#98) for commercial enterprises on campus, which is presently administered by UBC Treasury (Stott). Thus, regulations and specifications for the licensing of kiosks would be administered by the UBC Treasury. Campus and Community Planning is in the process of evaluating changes to the procedures and regulations to implement a "municipal style" business licensing system (Stott). Before kiosks arrive on the redeveloped University Boulevard, it would be beneficial to have all of the appropriate [licensing] changes in place. Normal municipal practice would evaluate safety concerns and would allow the campus community to comment on a business license application (Stott). Critical stakeholders that must be involved in this process include the campus community generally, the retail merchants along University Boulevard, and AMS tenants in the SUB in particular (Stott).

Many factors need to be considered in the implementation of a kiosk, including (Kiosk Cabinet Showroom):

- 1) **User Traffic** - The UBC Farm kiosk must be placed in a high-traffic location where exposure is maximized thus increasing the potential for mass environmental education. UBN is proposed to be a 'hub' of activity and, therefore, will be an ideal place for such an enterprise (UBNP 4).
- 2) **Power** - Standard 120 VAC power is usually sufficient. However, this may not be required depending on the complexity of the kiosk design. The UBC Farm kiosk need not be complicated – something as simple as a foldable table or stand with overhead covering would be sufficient. Purchases can be cash only as is the case of many street vendors and as such, automated cash registers or other electronic devices would not be necessary thereby eliminating the need for a power source. If power sources are required, the UBNP states that the neighbourhood shall be equipped with electrical power connections to facilitate street vendors and festivals (UBNP 22).
- 3) **Security** - Security is always a concern when operating a kiosk; however, during hours of operation, the highly visible location of UBN will decrease risk for vandalism and theft. At night, the kiosk – which can be a foldable table, can be loaded into a truck, with the produce that is being returned to the farm until the next day.
- 4) **Weather Exposure** - Weather can be a concern when operating a kiosk, whether it is the hot sun or the rain. The UBNP has specified buildings to have "continuous

environmental protection” in the form of overhangs to shield pedestrians from weather with the objective of making UBN available for year round activities (UBNP 18-19).

This aspect of UBN’s physical design will make it a great location for a kiosk business.

- 5) **Accessibility** - Locations need to be selected that comply with applicable accessibility requirements. Kiosks will be located on the street level, on the sidewalks or in University Square – places which are accessible to all.
- 6) **Building Codes** - UBC’s Campus and Community Planning may have specific codes that kiosks need to abide by; however, at this time there are no such specifications for street kiosks.

In the initial start up of the UBC Farm kiosk, the days of operation could be 2 or 3 days per week, for 4 or 5 hours per day. In this case, the kiosk may be designed in a way to accommodate easier means of taking it apart for safer storage. In addition, because of the seasonal aspect of the operation, less “high-tech” options for kiosks may be more feasible.

Strengths of UBC Farm Kiosks in UBN may include support for the local farm and community, availability, accessibility, education, and awareness of the local food system. In addition, it would help to secure UBC farm’s place in the community, promote local job growth by encouraging consumers to purchase local/regional foods, and possibly lead to a future UBC Farm expansion. Limitations of UBC Farm Kiosks in UBN may include high licensing fees, UBC bureaucracy hindering start up, not having a sufficient quantity or variety of products to sell, and keeping produce fresh. Additional limitations may involve theft and/or poor weather limiting the number of consumers

Festivals

Aside from fostering community involvement and social engagement, the ultimate goal of a festival in the University Boulevard is to educate as many people as possible about the food system. By taking advantage of a social gathering, an educational element would be included in all special festival events. One possible festival to raise awareness of the food system is an Autumn/Harvest Fest.

A proposed Autumn/Harvest Fest, may include, but is not limited to:

- Street/Block party with live music and possibly a beer garden serving local beer
- Cooking contest (Iron Chef-style) with farm produce and secret ingredients
- Food-related carnival games

- Pumpkin carving
- Fireworks
- A draw for free produce to promote the UBC Farm
- Kiosks, sidewalk-sale, and mobile stands of cooked and fresh food and produce

To begin planning for such an event, an application to the UBC External Affairs office must be made to assist in street closures, event logistics, and compliance with by-laws and conditions. Further steps required in planning a large-scale special event may also include licensing, insurance, security, marketing, and volunteers.

Volunteers for a special event often learn more about the objective of the event than the participants. Given their role in a special event to run the show and also to educate the public, volunteers are a good place to start with food sustainability education. To reach the general public, however, marketing for the event would require much of the efforts of the volunteers. A simple way to advertise the event would be the use of flyers and posters. Event posters can be posted in various locations in University Boulevard, across University Town, as well as across the entire campus in designated postings locations. The City of Vancouver also allows event posters on special poster cylinders on lampposts located at selected locations throughout the city (COV Film and Events 1). The advertisement of a special event beyond the borders of UBC would be a great way to reach out into the surrounding communities around UBC.

Security at the festival is a grave concern as the success of the festival would determine the success of future special events. Nonetheless, security and policing services provided by the campus RCMP would provide them with a great opportunity for community involvement.

Finally, the licensing of a special event is costly and the terms and conditions attached to such a license are often extensive. For example, with the City of Vancouver, the conditions attached to the licensing of a special event include restrictions on food services and the sale of goods, and require insurance coverage further adding to the costs (Vancouver 1). Furthermore, a separate fireworks license may also be required.

Clearly the opportunity for great achievement in food sustainability education can be made in a special event such as a street festival. Yet, the logistics required in such a venture are beyond the scope of this project. As a result, the significance and potential of a street festival in advancing food sustainability education merits the focus of future research groups in proposing a successful Autumn/Harvest Fest.

Business Budget

Despite the complexity of organizing and administering a street festival and UBC Farm kiosks, an analysis of the possible costs of such an operation reveals the economic feasibility of holding these events. Table 1 outlines the possible sources of revenue, operation expenses, and the projected profit associated with kiosks and a street festival.

Table 1 OUTLINE OF KIOSKS AND FESTIVAL COSTS, REVENUES, AND PROFIT

Kiosk and Festivals	In CDN \$
Production Revenue	
Sale of produce/goods sold (based on a years operation, 3 times each week)	60000
Donations from workshops & Farm Projects	30000
UBC Funding	10000
Research Funding	10000
Festival Revenue	
Ticket Fees (10\$ per ticket)	10000
Revenue from Refreshments Sold	6000
Net Revenue	126000
FIXED COSTS	
Operating Inputs	
Utilities	
Electricity: 120 vac power	76.86
Water	50
Licensing	
License for operation	932 (GST Included) (25% deposit of new fee schedule due by 12 noon on the last business day of January)
License for fireworks	450
Insurance for equipment	300
Liability for ride operation	500
Workers Compensation	500
First Aid Kit	50
VARIABLE COSTS	
Marketing & Advertising	
Brochures & Flyers (distributed every 3 months)	150
Transportation for distribution including gas (distributed every 3 months)	300
Packaging - Printing & Bags with UBC Farm Logo (based on 1000 bags)	150

Supplies	
Tables (borrowed from MacMillan building - Agora)	0
Stands/Kiosk Carts	7200
Lawn/Folding Chairs (borrowed from MacMillan building - Agora & Classrooms)	0
Cooking Ware (borrowed from MacMillan building - Agora)	0
Ice Containers for Drink Bottles (borrowed from MacMillan building - Agora)	0
Cutlery (borrowed from MacMillan building - Agora)	0
Pumpkins (for 50 total)	250
Services	
Security Services from AMS	0
Policing & Patrols for Street Blocking	1740
Labour	
Faculty Staff	30096
Graduate Students (based on 18\$ per hour for 4 people)	19296
Undergraduate Students (Students in AGSC) (based on 12\$ per hour for 4 people)	360
Dietitians (based on holding workshops once a month, at 30\$ per hour)	21600
Staff on UBC farm	360
Volunteers	0
Administration Services	
Payroll staff (12\$ per hour for one person)	2304
Human Resources/ Recruitment Coordinators (12\$ per hour for one person)	2304
MacMillan: Boardroom booking for seminars, workshops, orientations	0
Entertainment & Amusement	
Carousel	1000
Fireworks	3000
Beer	500
Arts & Crafts for games (borrowed from MacMillan - Agora)	0
Entertainers	
Local Musicians	500
Volunteer Student Musicians: Undergraduate & Graduate Students in Music	0
Waste Expense	
Waste Bins for Compost, Recycle and Garbage Pickup	3
Net Expenses	93039.86
Projected Profit	32960.14

Future Recommendations

Due to the fact that this was the inaugural attempt at Scenario 6, the scope of this project was rather large in the attempt to fully develop the concept of a sustainable food system

within UBN. As a result, our recommendations to connect UBN with the local food system via UBC Farm are broad with the intention of setting a base from which future groups can work and elaborate.

Our recommendations to future colleagues are to expand upon our strategies and work out the details needed for their implementation; to investigate the possibility of having a Farmer's Market in UBN; to explore the feasibility of having a UBN Community Garden located at UBC Farm; and to work more closely with individuals from Campus and Community Planning, UBC Farm and the UNA. Our recommendations for Campus and Community Planning and UBC Properties Trust are to support local non-profit, education initiatives run by organizations like the UBC Farm by giving their initiatives priority, and providing decreases or exemptions from licensing fees that may hinder their participation within the UBN.

CONCLUSION

Food system sustainability is vital. A *sustainable* food system is essential for our physical, economic, and social health and must be viable for now and for future generations. The UBC campus is an ideal venue to foster the development of a sustainable food system for it can be used as a model for larger food systems to which it is ultimately connected. Sustainability must be achieved in the smaller community systems before it can be achieved at the larger regional and global systems. The UBN is this smaller food system from which a model for sustainability can be created.

Clearly, an essential part of a sustainable food system is that of being connected to local food. In the case of the UBN, this is epitomized by its connections with UBC Farm. Awareness, and ultimately education, is a major factor in interconnecting the local food system with the community. Environmental and food literacy will ideally create an atmosphere supportive of local producers which will in time benefit the sustainability of the community as a whole. With the development of University Town across the campus, UBC has a great opportunity to adopt a truly sustainable plan, one which incorporates food system sustainability. With increasing international attention leading to the 2010 Vancouver/Whistler Winter Olympic Games, UBC would be able to uphold its international reputation as a leader among the world's best universities.

Appendix I

Figure 1

FOUR MAJOR COMPONENTS OF FOOD SYSTEM SUSTAINABILITY IN THE UNIVERSITY BOULEVARD

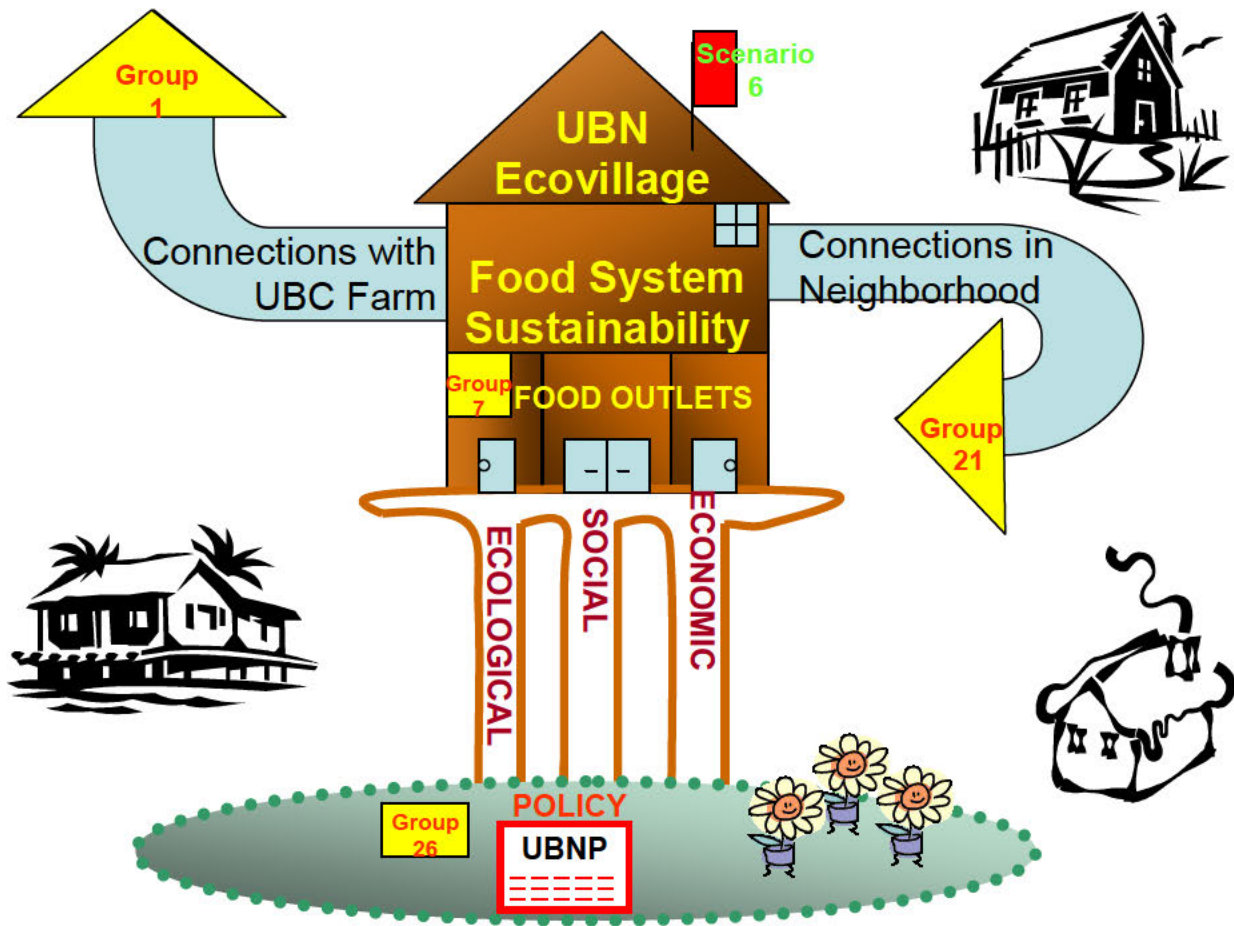


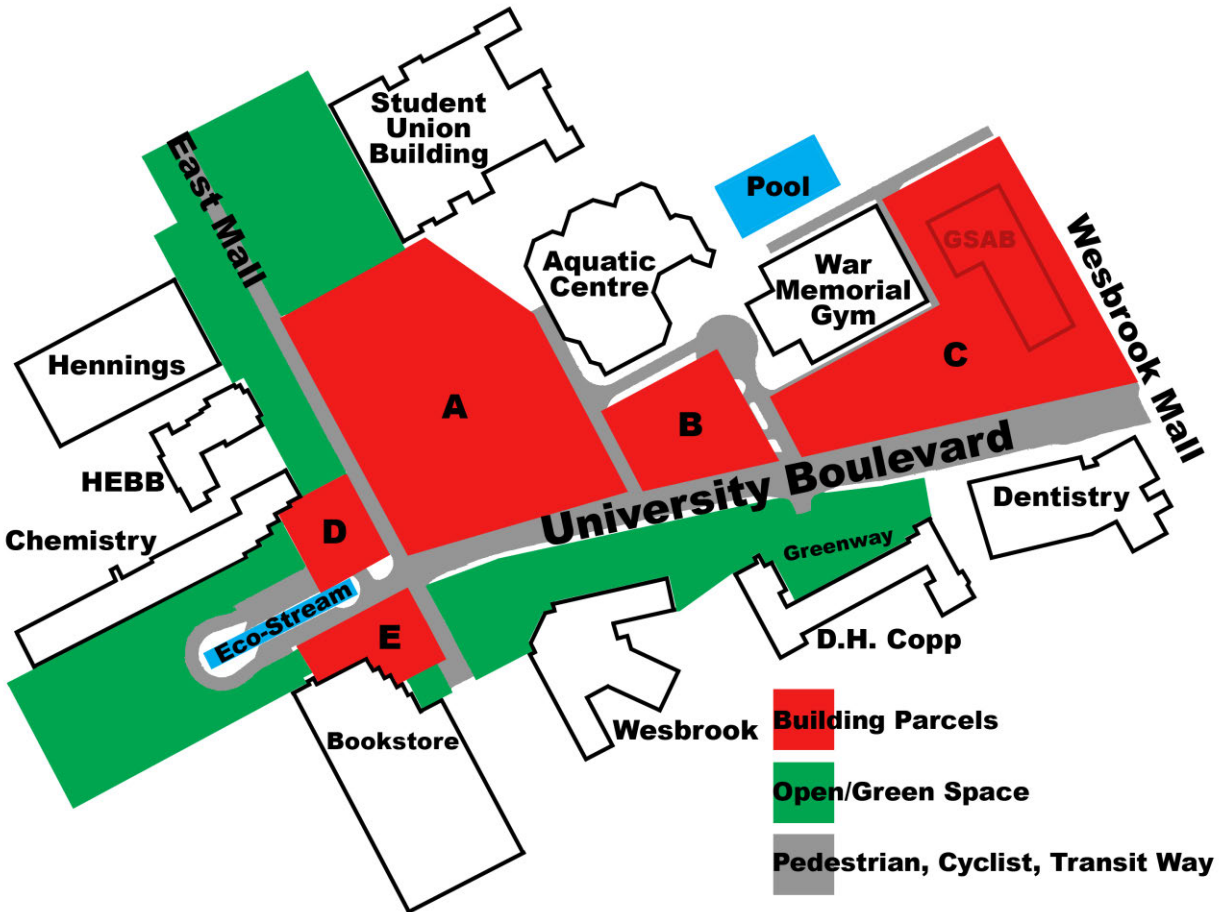
Figure by Anna Wren and Wendy Liu, Scenario 6, UBCFSP 2006-04-07

Adapted from: Global Ecovillage Network 3

Appendix II

Figure 2

CURRENT BUILDINGS AND FUTURE DEVELOPMENT OF UNIVERSITY BOULEVARD



A) University Square: Retail/restaurant, office/commercial, theatre, and institutional spaces in the lower floor, rental housing in the upper floors, and a new underground transit hub.

B) University Administration: Administration and executive office and meeting uses.

C) Front Door: Ground level retail, commercial, and office spaces with upper floor housing.

D) Information Centre: Campus Information Centre.

E) Bookstore Forecourt: Bookstore entry renovation and expansion.

Map by Group 1, UBCFSP 2006-04-07

Source: UBC External Affairs 2

Appendix III

Figure 3: ROUTE 1 COMMUNITY SHUTTLE 2006 – TOTEM PARK/MARINE DRIVE



Source: UBC Community Shuttle, Totem Park/Marine Drive

Figure 4: ROUTE 2 COMMUNITY SHUTTLE 2006 – HAMPTON PLACE/ACADIA PARK



Source: UBC Community Shuttle, Hampton Place/Acadia Park

Figure 5: PROPOSED SCHEDULE DESIGN FOR UBC COMMUNITY SHUTTLE SEPT 2006

Route 1: Totem Park/ Botanical Gardens/ Museum of Anthropology Route		
Days of week	Frequency	Hours of operation
Monday - Friday	30 min	7:00 am to midnight
Saturday	30 min	9:00 am to midnight
Sunday/Holidays	30 min	10:00 am to midnight
Route 2: Hampton/ Fairview/ Acadia Route		
Days of week	Frequency	Hours of operation
Monday - Friday	30 min	7:00 am to 7:00 pm
Saturday	30 min	9:00 am to 7:00 pm
Sunday/Holidays	30 min	10:00 am to 7:00 pm

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