

A GREENHOUSE IN THE INNER-CITY:
COMMUNITY-LED DEVELOPMENT IN THE SPENCE
NEIGHBOURHOOD

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Abstract

The Spence Neighbourhood Association (SNA), a community association located in Winnipeg's inner city, seeks to increase access to food and food skills for community members by building a greenhouse in the Spence neighbourhood. The purpose of this research was to contribute to the creation of a comprehensive plan as to how this greenhouse could best meet the community's needs. This research was completed by identifying SNA's vision for the greenhouse, interviewing community members, interviewing local organizations that could act as potential partners in the realization of the greenhouse, and by synthesizing these results into a report to be distributed to SNA. The results of this research demonstrate community members' priorities for this greenhouse project, potential benefits and challenges in the realization of this project, and how partnerships with other local organizations could help enhance some of the benefits, and address some of the challenges indicated by interviewees. Results also provide suggestions for how SNA can move forward with this project and they indicate future avenues of research that can be taken to ensure this greenhouse can help meaningfully address food security for community members of the Spence neighbourhood.

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1. Introduction

Food security is an important concern in North American cities, and new initiatives to address the lack of access to food that many people experience in urban areas continue to emerge. In recent years, food security in Winnipeg's inner city has been studied by scholars who have brought to light the social, geographic, and economic obstacles that systematically exclude certain populations from the conventional food system (Cidro *et al.*, 2015; Henderson *et al.*, 2017; Wiebe *et al.*, 2016). The Spence Neighbourhood Association (SNA), a neighbourhood renewal corporation located in Winnipeg's inner city, seeks to work with neighbourhood residents to revitalize the community (SNA, 2016). Their work includes addressing issues of food security in Spence. SNA's most recent five-year plan, which was created through community consultation, sets forward various goals, including working towards better food access and food skills (SNA, 2016). One of the long-term strategies in this document is to build an all-season greenhouse to enable continuous production of fresh food (SNA, 2016).

This long-term strategy is being realized as part of a larger food-security initiative named the Cumberland Corridor; an avenue containing empty lots that will be filled with berry shrubs, edible fruit trees, and an all-season greenhouse (SNA, 2018). Due to Winnipeg's climate, fresh produce can only be grown year-round if it is within a structure that shelters it from the external environment, which makes the greenhouse a central concept to achieving year-round food security. SNA has acquired funds to build the greenhouse, however operational costs have not yet been funded, and the vision for how this greenhouse will be utilized by the community to contribute to the creation of better food access and food skills remains unclear.

1.1 Purpose of Research & Objectives

This research sought to reduce uncertainties surrounding the greenhouse's uses by collaborating with local partners – namely community members and other local organizations – in order to assemble a vision for the greenhouse that will fulfill community needs. It sought to contribute to the creation of a comprehensive plan as to how this greenhouse can best be utilized within Spence to benefit the community.

This research helps fill a gap in academic literature by contributing to knowledge on how stakeholders within a community can work together in new ways to find solutions for improving food security in inner-city environments (e.g. Cidro *et al.*, 2015). It sought to help SNA make a case for the greenhouse and contribute to the realization of the project by increasing opportunities to receive additional funding to ensure its economic sustainability. This research also aimed to contribute to strengthening relationships between the university and community members by using academic resources to bring to light community initiatives to enhance food security in the community. Overall, this research had four objectives:

1. Describe SNA's vision for the greenhouse;
2. identify the priorities and interests of community members;
3. identify potential funding partners and seek their input for this project; and
4. synthesize stakeholder responses and report these findings to SNA to help inform how the community believes this greenhouse could best serve neighbourhood needs.

This research was done in order to complete a BA Honours Thesis in Environmental Studies. Each stage of the research was developed with the support of SNA.

2. Literature Review

2.1 Community-Led Development

Community-led development is defined as “a unique approach to tackling local problems and building on local strength,” and usually does so by meeting a community’s social and economic needs, including access to affordable, nutritious food (Torjman and Makhoul, 2012, p.1). Community-led development can include cooperatives, neighbourhood renewal corporations, and social enterprises. Social enterprises are organizations that use business strategies to maximize their social and environmental impacts to generate positive impacts in society (Chamberlain *et al.*, 2015).

2.2 Urban Agriculture, Food Security, and Community-Led Development

Urban agriculture is “an industry located within a town, city or metropolis, which grows or raises, processes and distributes a diversity of food and non-food products... to that urban area” (Mougeot, 2000, p.11). It exists in many forms, including private gardens, community gardens, edible landscapes, and urban farms that operate on vacant lots, in abandoned buildings, and on rooftops (Thomaier *et al.*, 2014; Eigenbrod and Gruda, 2015). Urban agriculture can be utilized alongside community-led development to meet community needs related to food, specifically, food security. Studies by Guthman (2008) and Kato and McKinney (2015) in Santa Cruz and New Orleans, respectively, highlight the importance of engaging community members in urban agriculture projects to ensure they serve community members they are meant to serve.

Community food security is defined as “a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a

sustainable food system that maximizes community self-reliance and social justice” (Hamm and Bellows, 2003, p.37). It is intertwined with the concept of food sovereignty, which is “the right of local peoples to control their own food systems, markets, ecological resources, food cultures, and production modes” (Laidlaw and Magee, 2014, p.574), and the concept of food skills, which are a “complex, interrelated, person-centered set of skills that are necessary to provide and prepare safe, nutritious, and culturally-acceptable meals for all members of one’s household” (Health Canada, 2015, p.1).

In Oakland, various community-based organizations and social enterprises address food security through community shared agriculture programs, local farmers’ markets, community gardens, and educational programs (Clendenning *et al.*, 2016). In Detroit, the Earthworks Urban Farm, the Detroit Food Justice Task Force, and the Detroit Black Community Food Security Network work together to change the production and distribution aspects of food systems through mobilization, education, and policy advocacy while building a sense of justice, equity, and self-determination (White, 2011). Meechim Inc., a social enterprise in Garden Hill First Nation, has a farm, a food market, and a school to farm program to help community members gain local control of food production and build the local food economy (Puzyreva, 2018). Some of these organizations utilize greenhouses as part of their food production system.

2.3 Urban Greenhouses and Food Security

Urban greenhouses that belong to social organizations usually exist as part of a larger project to enhance food security goals within a community. For example, Black Creek Community Farm in Toronto, ON, is an 8-acre urban farm that acts as an agricultural

centre to engage, educate, and empower diverse communities through sustainable food production, provide leadership in food justice, and support diverse natural and social ecosystems (Black Creek Community Farm, n.d.). They grow organic produce that is accessible to community members through their food distribution projects, all of which have food security as their central element (Black Creek Community Farm, n.d.). The farm is composed of organic vegetable fields, a food forest, an outdoor classroom, a mushroom garden, chickens, beehives, and also includes four-season greenhouses, which are used to grow seedlings to be planted elsewhere on the farm, and warm temperature crops (Black Creek Community Farm, n.d.). A second example is FortWhyte Farms, a social enterprise located in southwest Winnipeg that consists of a 2000 square foot greenhouse, 1.5 acres of garden space, an apiary, and livestock (FortWhyte Farms, n.d.). This social enterprise distributes food via a market and Community Supported Agriculture, and contributes to the community by having youth work programs and hosting workshops and events for skill-sharing (FortWhyte Farms, n.d.). They also have a community commercial kitchen available for rent (FortWhyte Farms, n.d.).

Greenhouses can also be used in northern climates to increase food production and enhance food security and other community goals. The Inuvik Community Greenhouse, located in the Northwest Territories, provides a variety of services to the community, including growing and selling seedlings for vegetables and flowers, growing food for purchase, and providing a space for community activities like yoga (Inuvik Community Greenhouse, n.d.). The greenhouse rents out garden “plots” where, for a small fee and volunteer hours, community members can grow their own food. It also provides employment opportunities to the community, including internships for those under the age of 30 (Inuvik Community Greenhouse, n.d.).

Daftary-Steel, Herrera and Porter (2015) warn that an urban farm cannot simultaneously provide jobs to vulnerable individuals, provide healthy food to low-income households, and generate sustainable income from sales. They state that offering all three services is possible, but only with an external source of funding (Daftary-Steel *et al.*, 2015).

2.4 The Local Context of Food Security

Winnipeg's inner-city has a long history of complex poverty (Silver and Toews, 2009). A consequence of this is a reduced accessibility to affordable, healthy and nutritious food. In 2016, nearly 85,000 people lived in inner-city neighbourhoods classified as severely unsupportive food environments (Wiebe *et al.*, 2016). For 31% of people, distance to a supermarket is a significant barrier, however the largest obstacle is economic, since 51% of people live nearby to a supermarket. Wiebe *et al.* (2016) characterize this as a food mirage, where physical access to food is possible, however other obstacles stand in the way. The Spence neighbourhood is one of those affected by a food mirage.

According to 2016 census data, Spence is home to approximately 4,400 people (City of Winnipeg, 2019). Over a quarter of the population identifies as Métis, First Nations, or as having multiple Aboriginal identities, and about half of Spence's population identify as a visible minority (City of Winnipeg, 2019). Spence also has a higher than average immigrant population compared to the rest of Winnipeg (City of Winnipeg, 2019). Cidro *et al.*'s study on Winnipeg emphasizes the importance of access to culturally appropriate food in order to reach food sovereignty (2015).

3. Methods

3.1 Research Design

This research took a community-based approach, meaning that a community organization had a direct influence on the research topic, methods, and outcome of the research (Community-Based Research Canada, n.d.). In this case, SNA, as a representative of the community, had the opportunity to review and make changes to the project proposal, the interview questions, the ethics application, as well as the final written thesis. This research topic was first determined in the summer and fall of 2018 through conversations with SNA's Executive Director and previous Environment and Open Spaces Coordinator. Since the beginning of 2019, this communication continued via regular meetings and emails with SNA's current Environment and Open Spaces Coordinator.

3.2 Data Collection

3.2.1 Review of Literature and SNA Documents

A review of peer-reviewed literature on food security, community-led enterprises, urban agriculture, and urban greenhouses was conducted. Grey literature was also reviewed; this search focused on current projects that utilize greenhouses and other forms of urban agriculture to address issues related to food security in a winter city.

Since SNA had already invested large amounts of energy and resources into consulting with community members regarding this project, a content analysis of SNA documents related to the project and the larger Cumberland corridor was completed in order to identify any information related to the greenhouse. This analysis was completed using QSR's NVivo 12, and included seven documents:

1. Three of SNA's Five-Year Plans: 2006-2011; 2011-2016; 2016-2021
2. SNA's Annual Reports for 2016, 2017, and 2018
3. HTFC's¹ Report on the Cumberland Food Corridor

3.2.2 Local Food Needs

To determine viable and desired greenhouse foods among food insecure SNA residents, data were collected from organizations in or near Spence that provide food boxes and walk-in meal services to the community. Seven organizations were identified in conversation with SNA: Main Street Project, Siloam Mission, Union Gospel Mission, Ma Mawi Wi Chi Itata Centre Inc., Resource Assistance for Youth, Winnipeg Harvest, and Agape Table. Relevant information was first gathered via documents and statistics that were available on these organizations' websites, and further information was gathered from Winnipeg Harvest and Union Gospel Mission through email. Main Street Project was also contacted by email, and as a result they invited me to volunteer at their weekly essential market – a small grocery store-like space divided into sections based on food types, that customers get to walk through and select the food of their choosing with the help of volunteers. On January 30, 2020 I spent the morning volunteering at this market. As a participant, I made observations of people's food choices, which were written down as soon as my shift was over. Agape Table was also contacted but there was no response.

¹ HTFC is a planning and design firm located in Winnipeg. They were hired by SNA to create a conceptual design of the Cumberland Corridor, which was finalized in March 2018.

3.2.3 Semi-Structured Interviews with Local Stakeholders and SNA Staff

Semi-structured interviews were conducted with three different stakeholder groups. Overall, nine interviews were held. First, three residents of Spence were interviewed in order to identify their vision of the greenhouse, and how they believe the space would best be utilized to provide access to food and food skills within the community. All three of the community members interviewed had previously been or were currently involved in SNA's Environment and Open Spaces Committee. The questions for these interviews were determined based on information identified as missing during the content analysis of SNA's documents, and they were vetted by SNA before ethics approval to ensure they aligned with SNA's community engagement standards. Two of the interviews were completed using the questions listed in Appendix 1; each was audio recorded (with the permission of the interviewees) and was approximately 30 minutes in length. The third interview was conducted with a community member after a February 4, 2020 consultation event held by SNA. Previous to the consultation meeting, a set of expedited interview questions (see Appendix 2) was prepared in order to accommodate anyone who was present at the consultation who wanted to participate in an interview. This interview was approximately 20 minutes and was recorded via contemporaneous handwritten notes.

Semi-structured interviews were also conducted with organizations located within or near Spence that were identified by SNA as potential partners for this greenhouse project. A total of four organizations were interviewed: Diversity Foods at the University of Winnipeg, the Portuguese Association of Manitoba, West End Biz, and the Daniel McIntyre/St. Matthews Community Association (DMSMCA). Once more, the questions for these interviews were approved by SNA before being submitted for ethics approval

and are listed in Appendix 3. All four interviews took place at the organizations' premises, and were audio recorded with permission.

During this research, it was decided that two additional interviews would be conducted in order to get a more complete picture of SNA's vision of the greenhouse. As a result, SNA's current Environment and Open Spaces Coordinator, and SNA's previous Environment and Open Spaces Coordinator were interviewed. The set of questions used for these interviews can be found in Appendix 4. The interviews lasted approximately 30 minutes, and were audio recorded with permission from the participant. All participants consented to their names being used in this study.

Though the interviews were separated into three distinct groups, it is important to note that in reality, these distinctions are not always clear. For example, an interviewee not listed as a community member was a resident of Spence for over 40 years until very recently. Similarly, another interviewee resides just outside of the Spence boundary. These complexities informed the interviewees' contributions during the interview.

3.2.4 Informal Field Observations

During the time of my research, SNA's Environment and Open Spaces Coordinator hosted two consultation meetings with community members that were relevant to this research. These consultation meetings are opportunities for community members to provide input on ongoing projects. The first was held on February 5, 2020 and it was regarding another community gardening site in Spence that will be refurbished this summer. This refurbishment includes building a small greenhouse, which will be used as a pilot project for the greenhouse that is the topic of this research. The second meeting took place on the evening of March 4, 2020 on the topic of the Cumberland Corridor.

Both consultation meetings took place at SNA offices at 615 Ellice, and observations of the discussions were recorded through note taking at the time of the events.

3.3 Data Analysis

The content analysis of SNA's materials, done to identify the organization's vision of the greenhouse, was completed by reading through the documents and identifying any information related to the greenhouse. The interviews were transcribed and were analyzed qualitatively with the same software through a grounded approach with a process called constant comparisons (Corbin and Strauss, 2015). In this process, the data were compared and broken down into smaller pieces (data segments), which were then "grouped together into conceptual clusters (ideas)" (Lune and Berg, 2017, p.179). The clusters were then reviewed once more and broken down into smaller categories (themes) based on their properties, and these were then organized around core categories (Corbin and Strauss, 2015). This form of data analysis allowed for the identification of the priorities and interests of community members and potential partners. Both analyses were completed using QSR's NVivo 12 software. The results of this data analysis are discussed in part four and will also be shared with SNA via a report that will be produced with the purpose of informing their plans for the greenhouse project.

3.4 Threats to Validity/Trustworthiness

Potential threats to the validity of the research include issues of (i) credibility, (ii) dependability, (iii) conformability and (iv) authenticity (Elo *et al.*, 2014).

Credibility refers to the extent to which the data and analysis address the intended focus of the project (Elo *et al.*, 2014). This point was addressed by consulting SNA and through pre-interviews to ensure that interview questions accurately facilitated the collection of data that were needed for this research project (Elo *et al.*, 2014).

Dependability refers to the stability of the data over time and under different conditions, and calls for the accurate description of themes throughout the analysis portion of the project (Elo *et al.*, 2014). Accurate description was ensured through the use of thick description to convey findings (Creswell, 2014). Thick description refers to “the researcher’s task of both describing and interpreting observed social action (or behaviour) within its particular context... [it] captures the thoughts and feelings of participants as well as the often-complex web of relationships among them” (Ponterotto, 2006, p. 543).

Conformability ensures that the data accurately represent the information provided by participants (Elo *et al.*, 2014). This was ensured through member checking, where SNA’s Environment and Open Spaces Coordinator was given the opportunity to review findings and themes identified in the data to ensure accurate representation (Creswell, 2014). Conformability was ensured through peer debriefing, where my thesis advisor reviewed the study to ensure that what I found transfers accurately to other people (Creswell, 2014). It was also ensured through the identification of any potential biases remaining from data interpretation, which are listed in the following section.

Authenticity, the extent to which I fairly demonstrate a range of realities that exist (Elo *et al.*, 2014), was addressed through the inclusion of negative information collected in the data, even if it runs counter to the themes identified throughout the data analysis (Creswell, 2013).

3.5 Limitations of the Methodology

Conformability could have been further ensured by giving the opportunity to all interview participants to review the findings and themes identified in the data to ensure accurate representation, however this was not completed due to the limited timeline of this project.

Since a broad range of community members were not involved in this research, the community-based approach that was taken for this research assumes that SNA represents the research interests and priorities of the community. A clear limitation is the low number of community members who were interviewed. This was due to time, as well as my status as an outsider (see below). Similarly, the lack of involvement of members from the community who identify as food insecure also limited the extent to which this research fully identifies how the greenhouse could best address food security issues.

Another limitation, especially when it came to interviewing community members, is my status as an “outsider” in the community (Kerstetter, 2012). Certain aspects of my identity, including the fact that I am somewhat familiar with the neighbourhood, as well as my collaboration with SNA, gave me access to knowledge and information I may have not had otherwise. However, because I do not live in Spence and have limited previous involvement with SNA, my access to community members and the data I collected may or may not have been limited.

4. Results

The results are organized into five main sections. The first three pertain to my primary objectives: SNA's vision, priorities and interests of community members, and potential partnerships. The fourth and fifth sections present issues relevant to each of the objectives, and encompass, respectively, potential benefits of the greenhouse and challenges to successful implementation.

4.1 SNA's Articulations of the Greenhouse

The Cumberland Corridor became part of the Environment and Open Spaces Committee's discussions in 2005 when it was identified as an important walking and cycling corridor (HTFC, 2018). This was confirmed in SNA's 2006-2011 Five Year Plan in the green space category: "The Cumberland Corridor exists as a series of small green spaces that were created when Notre Dame Avenue was split into two one-way streets. There is potential to transform this awkward set of green triangles into a biking and walkway that could serve commuters as well as the Spence community" (SNA, 2006, p.95). This was further confirmed by Natalie, who was the Environment and Open Spaces Coordinator at SNA from April 2017 to November 2018:

The road was built through a bunch of lots... so community members were like "hey we're just wasting this space as grass, it could be more park infrastructure, possibly food growing space," and it's always been on the list of things that were under the responsibility of the EOS coordinator.

During Natalie's time at SNA, HTFC was hired to host consultation meetings and events with community members in 2017 and 2018, and as a result of these consultation efforts,

the Cumberland Corridor design was created (see Appendix 5). During the conceptual design of the Cumberland Corridor, the lot to the west of Sherbrook St. was identified as large enough for a community greenhouse, which could act as a gateway feature for the community (HTFC, 2018). HTFC's report identified the greenhouse as "a place for food production, a place to produce plants for the corridor, and a place to provide training to interested community members" (HTFC, 2018, p.24). During her interview, Natalie described the ideal vision that was first discussed when this project was coming together:

Yeah, so I think the ideal vision was a full year-round greenhouse growing greens possibly during the winter, that could be used to sell them as a social enterprise in order to continue to pay for the operations and maintenance of a greenhouse... having a place where we could hire community members to work in a greenhouse that would then generate some revenue and possibly some other streams to get the vegetables into the community.

Olivia, SNA's current Environment and Open Spaces Coordinator, took over the Cumberland Corridor project once Natalie left, and has since made significant headway, including acquiring funds and receiving the necessary zoning approvals for the project.

Olivia's vision for the greenhouse resonated closely with Natalie's:

I envision it as a place to start seeds rather than our basement. So food production as early as possible, March hopefully would be warm enough with the heat and water being supplied there. As the summer goes on, giving those plants to people in the community, or selling them to people that are not in the community and not community gardeners to make some sort of profit from them.... And again,

hopefully being a social enterprise and growing things in the greenhouse that can be sold at farmers markets, or something. – Olivia

Olivia has also considered how this greenhouse will be maintained and run:

We have First Jobs 4 Youth so ideally they would be working in the greenhouse once or twice a week, there's eight of them. And ideally there be a greenhouse coordinator working at that site, five days a week.

At the consultation meeting on March 4, 2020, Olivia explained that she had applied for a research grant to develop the Cumberland greenhouse into a social enterprise. At this meeting, she also identified that making the greenhouse economically self-sustaining was a high priority goal for this project.

4.2 Priorities and Interests of Community Members

4.2.1 Governance and Management of the Greenhouse

With SNA being a community association, the involvement of community members is an essential part of ensuring the success of the greenhouse. Community members identified scheduling and communication as important organizational aspects of the greenhouse.

They also identified two groups of people who should be involved in the governance and management of the greenhouse: SNA staff and community members.

Lynne is a resident of Spence and a long-time member of the Environment and Open Spaces Committee. We met at the consultation meeting on February 5, 2020, where she agreed to an interview, which took place after the consultation meeting had ended.

During the interview, Lynne emphasized the need for the greenhouse to be well organized. In order to ensure good *communication*, she stated that there would have to be

a cellphone dedicated to that space. She indicated that if the greenhouse were to be run as a social enterprise, this would require another layer of communication. Lynne also stated that a *schedule* would have to be created for the groups and individuals utilizing the space; for example, SNA would be responsible for the space on Monday, DMSMCA on Tuesday, etc. Even with both a schedule and a good communication network, there would still be a need for someone who is dedicated to supervising and unlocking/locking the greenhouse.

When asked who should be involved in the greenhouse, two distinct groups were identified. The first is *SNA staff*, which in all conversations took the shape of a “greenhouse coordinator.” Anna is also a resident of Spence, was on the SNA board for four years, and has chaired the Environment and Open Spaces Committee. She highlighted the importance of having a full-time staff dedicated to the greenhouse:

I think that the era of SNA when there was the best community development happening with the previous greenhouse on Maryland, was when there was money for a greenhouse coordinator... The community connecting that was able to happen around that space when there was someone fully dedicated to it, was great and would be the best way to use the new greenhouse space effectively.

The importance of involving Spence *community members* in this project was mentioned by Anna, Susan, and Lynne. Community members were seen as needing to be involved in a variety of ways in the greenhouse. Anna discussed the importance of having various participants who should be able to benefit from the programming there. Lynne mentioned how she believed the greenhouse should be a shared responsibility of community members, that this was important for maintenance, and for tasks like seeding,

transplanting, watering, and harvesting. She also mentioned the need for specific skills to fulfill these tasks, especially at the beginning of the project. Lynne emphasized how a year-round greenhouse required even more maintenance, which makes the need for community involvement even more crucial.

Susan, the third resident of Spence, was an active volunteer in SNA's Building Belonging after school program for a number of years and was also involved in the Environment and Open Spaces Committee. She mentioned the importance of including community members throughout the process to ensure they can benefit from the uses of the greenhouse and the food being produced there:

I think maybe a way, in terms of setting up for success is trying to engage community members as much as you can... [so they] ... develop a certain appreciation moving forward. Not just kind of "here we built this for you, what do you want from it now?" Right? So, in any way that can be fostered and developed along the way, I think is a good idea.

4.2.2 Activities in the Greenhouse

A significant portion of the interviews with community members discussed what types of activities should be held in the greenhouse, and four main categories came up: teaching and education, food and plant production, community economic development, and an innovation space.

Both Anna and Susan stated they saw the potential for the greenhouse to be used as an *educational space* where workshops could be held for community members. Susan mentioned how workshops could help community members learn the potential that food produced in the greenhouse could have to supplement their diet, and that skills could also

be shared to help others grow food on their windowsill or on their balcony. Anna described how she would use the greenhouse:

I would probably ... set it up in a way that it would be good for like workshops and bringing other folks and doing stuff with schools, so I guess I would probably orient it more towards teaching and education.

Utilizing the greenhouse as a place for *food and plant production* also received considerable attention. These conversations revolved around how the food would be distributed in the community, and the potential this could have for both addressing food security and creating community economic development opportunities.

Anna and Susan discussed the potential for the food grown in the greenhouse to be distributed to those in need in the community. Susan mentioned how if the food is intended to be distributed to community members, a lot of consideration would have to be given to what types of foods those folks would utilize on a regular basis:

I'd think it would be foods that have the most nutritional value but are still palatable to a wide audience. A lot of people won't be interested in bean sprouts, or, you know, something that might be more traditionally thought of as local organic foods, and I'm not saying those don't have a place in community food access, but you know, as part of my other work with the Building Belonging program and delivering food boxes, and knowing that the reception of some of the materials in that food box... That it was not going on the table, that it was not even making it into the fridge probably.

With respect to the issue of local food preferences, there are numerous organizations in and near Spence that provide services related to food, but most of them do not have any data regarding what types of fruits and vegetables their customers prefer (Winnipeg Harvest, personal communication, January 20, 2020; Union Gospel Mission, personal communication, January 22, 2020). During my volunteer shift at Main Street Project's essentials food bank,² a variety of fresh fruits and vegetables were made available to the customers, including boc choy, bagged coleslaw, pre-prepared salads, potatoes, onions, bananas, oranges, lemons and melons. These items vary from week to week, however potatoes and onions are always a staple. The structure of this service allowed for a few observations. The choices that customers make for food are partially influenced by what cooking facilities they have access to on a regular basis. For example, those who do not have access to a kitchen preferred pre-prepared food items, or items with minimal preparation. Skills and knowledge about food may also play a role in the choices made by those who use this service. This service also demonstrated how everyone has food preferences due to a variety of factors, and different fruits or vegetables will meet the needs of different people. This supports Susan's focus on including those whom this service is supposed to benefit in the project itself.

When it comes to *community economic development*, Anna mentioned that this could be an alternative to making the greenhouse primarily an educational facility:

² Main Street Project is a non-profit charitable community health agency that provides approximately 127,750 meals annually, as well as an essentials food bank market, among many other community services (Main Street Project, n.d.).

The other orientations that could be I guess, oriented more towards community economic development, trying to grow a lot of stuff that we could you know, give to people or have people sell as kind of a work-placement thing.

She also mentioned how plants grown in the greenhouse could be sold at the Ellice Street Festival on a pay-as-you-go basis, to create income, and to get plants into people's yards.

Lynne mentioned that she would like to see the greenhouse become a social enterprise in the future. She mentioned that DMSMCA used to have a farmer's market, however now that is gone, and there are a lot of resources needed to organize a new one. Lynne discussed how other markets, such as the Wolseley Farmer's Market and the Manitoba Hydro Downtown Farmer's Market were close as well, and as a result it might be easier to invest in a van, tent and tables to load with produce grown in the greenhouse to bring to these markets rather than to organize a new one. Lynne also mentioned how food grown in the greenhouse could be utilized to make foods like pickles and sauerkraut, to be used in the catering service that SNA currently offers. Another idea was that the greenhouse could be used to grow trees for the neighbourhood.

Anna mentioned the potential for the greenhouse to be used as an *innovation space* for community members:

A potential exciting idea that, you know, if there was some sort of innovation space where people could use part of the greenhouse, kind of like a community kitchen, where they can figure out what they might be able to do with growing that could lead into a business for them, or kind of a bigger project and stuff like that would be exciting.

4.3. Potential Partnerships with Local Organizations

Partnerships are a crucial part of Environment and Open Spaces and their greening projects in Spence:

There's lots of seed places that donate to us, and Home Depot give us soil, seeds, and containers and stuff all year. – Olivia

The four local organizations that were interviewed also offered the possibility of partnering with SNA in different ways in order to help the greenhouse project succeed.

Diversity Foods is a social enterprise that provides healthy nutritious food for students, and is committed to social, cultural, environmental and economic sustainability. Ian Vickers is the Chief Operating Officer of Diversity Foods and a member of the Board of Directors. When asked if Diversity Foods would be willing to partner with SNA to help with the greenhouse project, Ian was enthusiastic about finding a way to support:

We would definitely find a way to partner in with them... Assuming that they would set this thing up so that it could be commercially utilized, yes we would partner in with them as a buyer of some sort, on some level. Even if it was similar to our relationship with FortWhyte where we ask them to take to market what they can and anything that they can't – we sort of guarantee that their product will sell, and if they can't take it to market then we buy it from them at the rates that we would otherwise get for our food. Because we are an institutional buyer we probably – we get better rates than what you'll get at a farmers market, and so a way of guaranteeing their stock is saying “yeah I'm not going to buy it from you at full retail, but I'll buy it from you at replacement cost that it would otherwise cost me to get it from our supply chain.”

West End Biz is a Winnipeg Business Improvement Zone, meaning that businesses in the zone pay a levy to West End Biz to “help with improvement grants, beautification, cleanliness, safety, all that kind of stuff” (Lia). Lia is the Planning and Project coordinator for the organization, which undertakes projects such as murals, plants, and other initiatives in public spaces. Lia was also very enthusiastic about the greenhouse project, and suggested a few ways the West End Biz could help:

I think there’s probably some way that we could, you know, cause we’re in the Zone we can help. Whether it’s just connecting resources at a minimum kind of thing, or if there’s a way... Basically we’re here to support the businesses as well, but there’s a lot that goes along with that. If a business wants to sponsor something like that... Like you said there’s possibilities for partnerships, I’m just not sure how that would work at this time.

She also suggested an idea for local businesses to be able to provide financial support:

Just throwing this out there but maybe there’s businesses who, kind of like the adopt a highway program? You have “adopt a plot” or something along there that the businesses sponsor and then it becomes a feel-good thing for the community.

The Portuguese Association of Manitoba has been located in Spence for 52 years:

Our aim, our mandate, is to, back in the 60s when we opened it up, was to help the Portuguese community integrate into the community, into Canadian society.

Presently, it’s for us to maintain our culture. So we’re very much involved in soccer, we’re very much involved in dancing – that’s how we attract the young people in here. – Zita

Zita is the Executive Director of the organization, which is run by a board. The Portuguese Association had partnered with SNA in the past to create a park on land owned by members of the Portuguese Association, however the plan fell through with issues related to funds. Zita mentioned that because they were part of the neighbourhood, they would try to find a way to help.

DMSMCA (Daniel Macintyre St. Matthews Community Association) is a community organization located in the neighbourhood west of Spence:

We were originally part of Spence, and then we kind of split off. It was kind of born out of SNA, so there's a good relationship between the two. It was just the geography, it was just after so many blocks we said there should be another group further down, so 11 years ago that happened. – Christian

Christian is DMSMCA's Housing Coordinator, however he wears multiple hats, including being the Greening Coordinator during the winter months. They operate very similarly to SNA, and though he clearly stated that they could not contribute financially, he offered another possibility:

Where we could maybe all help out is... To have it where they would provide updates to us and just say "here is how the project's going," even if it fails, even if it doesn't work out in the end, that's good for us to know. And if they could kind of you know, take us along in the journey, even if it's just an email blast once every couple of weeks.

He also mentioned how other community organizations could be invited for a site visit.

Both residents of Spence and representatives of the organizations also suggested several other partnerships that could be explored for the creation of this project. These suggestions can be seen in Table 1.

Table 1: Potential Partnerships to Explore

Local Businesses	<ul style="list-style-type: none"> - El Izalco and other food grocers - Eadha Bread - Restaurants - Greenhouses
Other Neighbourhoods	<ul style="list-style-type: none"> - Centennial neighbourhood - West Alexander
Educational Institutions	<ul style="list-style-type: none"> - John M. King - R.B. Russell - The University of Winnipeg - Red River College
Non-Profit Organizations	<ul style="list-style-type: none"> - West Central Women's Resource Centre - St. Mathews Maryland Community Ministry - Health Sciences Centre - Other community associations - Ma Mawi Wi Chi Itata Centre - Winnipeg Harvest

4.4 Potential Benefits of the Greenhouse

Seven potential benefits emerged during my discussions with interview participants.

Some of these benefits were previously mentioned in section 4.2, however they are included here to highlight their framing as benefits, and because they were also brought forward by other stakeholders.

4.4.1 Access to Affordable, Nutritional, Culturally Appropriate Food

Though access to food was broadly discussed by all interviewees, three specifically brought up how this project could increase access to affordable, nutritional, culturally appropriate food. Lia and Ian mentioned how this could benefit low-income folks in the neighbourhood, and Christian emphasized how this could give people the ability to grow culturally appropriate food:

For newcomers... You just can't get some of the stuff that they get. So you have tons of the oddest looking beans growing in our community gardens.

4.4.2 Education and Skills

Anna and Christian mentioned that the educational portion of the greenhouse could be great for the community, and be an opportunity to utilize produce grown in the greenhouse. Susan did as well, referencing past educational events hosted by SNA:

Yeah, because I always felt like the Environment and Open Spaces workshop components were very good, even if maybe not wildly attended, but just that idea of, okay, you have something and you don't know what to do with it, here are some ideas. Even just fresh herbs and that kind of thing, right?

4.4.3 Encouraging Future Community Projects

This project was seen by some as having the ability to encourage other local projects. Zita mentioned how other issues need to be addressed in the neighbourhood, but indicated that she believed this could be a start to addressing other challenges in the neighbourhood:

I think it's a start... I think it's a positive step forward, I'd like to see something being developed with the rest that's going on.

Lia also discussed how if this works in Spence, not only could it encourage future projects within Spence, but it could also spread to other communities.

4.4.4 Improvement of Physical Space

In terms of improving the physical space, Lia described the greenhouse as the creation of a community asset, and both Ian and Anna indicated how they were generally excited by

the idea of having a greenhouse in the neighbourhood. Christian pointed out how this project takes a historical part of the neighbourhood, and transforms it into something new:

I think it's great, where it is, is kind of a scar that runs through the landscape, and it's good that they're taking that on as something.

4.4.5 Positive, Public Space for the Community

One community member and three organization representatives mentioned how a greenhouse would create a positive, public space for members of the community to spend time in, and how this could be a benefit in itself to the community:

A greenhouse is just a very wonderful place to be in. It usually smells wonderful, there's warmth, there's plants, it's almost therapeutic just being in one. – Natalie

Two community members and one organization representative also mentioned how this community space could help facilitate social interactions among its members:

Part of that is people coming together and meeting the neighbours they may not otherwise meet, even if it's over peeling apples for two hours or what have you. I know there's a lot of intangible things that come out of those programs. – Susan

4.4.6 Protection from Pollution

Lia mentioned that since the greenhouse is located on a street with high car traffic, the greenhouse would act as a barrier between the food produced and any urban pollution:

The greenhouse aspect of it would protect a lot of the food from, you know, this is kind of a high emissions area and, you know, there's urban pollution and all that type of stuff, whether it be from vehicles or trash from residents.

4.4.7 Source of Inspiration and Hope

One last benefit, which was mentioned by both Natalie and Lynne, was that this project would bring hope to the community, it would show that people have pulled together and have figured out a way to make this project work:

Just to reaffirm that you can have an idea and it can become a reality, and you can have a vision for like, as a community as a collective, you can come up with these ideas and create a vision and it can change things. – Natalie

4.5 Challenges for the Greenhouse

Interview participants identified six potential challenges to consider, some of which have sub-sections. Again, some of these are in section 4.2, but they are set apart here, and grouped with issues raised by other stakeholders, to highlight their importance.

4.5.1 Adequately Addressing Food Security

Five of the interviewees stated their concerns about whether this greenhouse would truly address food security as intended. Anna mentioned how research has shown that there is not often a clear causal link between, for example, community gardens and increasing food security. Ian mentioned that though he believes this is a great initiative, in his opinion, the answer to food security is larger than just the greenhouse project, i.e., it is more of a food distribution problem, than it is about the need to produce more food.

Ian also talked about Diversity Food's experience trying to grow food in a greenhouse at the University to use in their own social enterprise:

Where we're successful is in growing... basil, and microgreens, and lemongrass, and oregano, and thyme, and those sorts of things, which is great because it means we are not bringing in basil from California.

However, he pointed out that herbs would not necessarily be the best food to help with food security:

If you're doing it and giving the fresh produce away and supporting this whole model where you're growing like, some fantastic squashes and hardier foods that are good for the local network, and giving it away to people who need them and can use them, I don't know what kind of volume you're going to need to put out?

So that's where you need to figure out what that impact is going to look like. – Ian

For some participants, there was concern about whether selling the food that is produced as part of a social enterprise would *compromise the possibility of adequately addressing food security*:

Now that's not to say that there won't be people who will be very interested and want living lettuce produced on the corner or something like that. I mean there are people who will be interested in that, but a lot of those people I think are better enabled to find it themselves, whether it's outside of the neighbourhood or... Like they might be in a better position to source that from different means. – Susan

4.5.2 Environmental Impact

Ian from Diversity discussed the potential for this project to have a large environmental footprint:

Urban farming tends to also be very carbon intensive. Are we net ahead when you're doing it?

4.5.3 Impacts on Other Local Businesses

Ian also mentioned how, depending what type of food would be produced in the greenhouse, this could potentially have a negative effect on already existing small businesses and job opportunities in or near the neighbourhood:

Winnipeg already has a lot of supply of tomatoes and cucumbers. So, part of my fear is that you've now got a not-for-profit who's going to compete with the for-profits, in this race of – with these for profit small farmers – in a race for growing tomatoes and cucumbers, which isn't I think what Spence Neighbourhood Association should be doing, because you're talking about now, that you're basically, like I said, if by doing this you're taking away from Greenland Gardens and their cucumber run, you're not helping the community in that.

4.5.4 Location

Anna mentioned how the location of the greenhouse and the Cumberland Corridor might limit the number of community members who would participate in the project:

Unfortunately, because Cumberland is kind of at the top of the Spence neighbourhood, it's actually quite far away from some of the people in Spence, which seems ridiculous because it's such a small neighbourhood. But... when I was on the committee, we did want green spaces to be more evenly spread out, because people really do stick to their block when it comes to using those spaces.

4.5.5 Safety and Vandalism

Five interviewees questioned how issues of safety and vandalism would be addressed all the while ensuring access to the space was not compromised. Anna mentioned how this was an issue with the previous Maryland greenhouse in the neighbourhood, which had a fence that could only be opened by the coordinator. Both Christian and Natalie mentioned how its distance from SNA offices may make the greenhouse more susceptible to vandalism. Lia mentioned safety could be increased by avoiding visual screens.

Christian from DMSMCA has experienced similar safety and security issues working with community gardens, and he discussed how high traffic can reduce risks. He also discussed solution they had attempted during last year's gardening season:

So the row of raised coffers between the border of the park where people could reach in... We ended up taking the last eight boxes and making them U-pick. And students just like take whatever seeds we have left over, just take something that is nice and colourful, you know shiny baubles, and put them in there. And those got raided a few times last year but... Once they did eight boxes, they were kind of exhausted, they didn't go on to the rest of the garden, so I think the vandalism last year was much less, so we think it might have something to do with that.

Because the rest of the food on Cumberland Corridor will be accessible to the public, it is possible that this will reduce the risks of the greenhouse being a target.

4.5.6 Running the Facility

The largest discussion about challenges was related to running the facility, and it can be divided into four distinct parts: communication, potential conflicts between those involved, greenhouse coordinator, and maintenance.

For *communication*, Lynne discussed how because people may not always have access to a phone, the internet, or because they live in apartments, it can be difficult to communicate any last-minute changes to people. She indicated that in order for the greenhouse to function well, there would need to be a good communication network between the coordinator of the greenhouse and other groups using the space.

Though partnerships are generally recognized as beneficial in community associations, some interviewees indicated *potential conflicts between those involved* with the greenhouse. Lynne said how when other groups have volunteered to help with gardening maintenance, it has at times caused more damage to the garden than good (for example, cutting down raspberry bushes). Olivia also mentioned that due to the fact this might become a social enterprise, building partnerships will be more complicated:

Like if we get someone else involved, how do they get involved in the money if we're making money from it? I don't know, I kind of want to see how far we can take it on our own without asking for help, and then ask for help when we need it.

Another concern mentioned was the capacity to *maintain* the greenhouse and the Cumberland Corridor in general. Lynne mentioned that garbage is an issue in the neighbourhood, and that it can make its way into the gardens. Lia, using her background as a landscape architect, discussed the importance of ensuring noxious weeds do not take over the intended landscape, saying "not all green is good." She also discussed how raised gardening beds or container gardening is more water intensive, especially outside. Anna discussed the amount of upkeep that would be necessary for such a big project:

The greenhouse itself, but then the entire corridor I think is potentially a big place to do upkeep, to do on top of the gardens... I know even the gardens that we do

have it's sometimes a challenge just to keep them up and to advertise them well enough so that people know they can have access to them. It's just a big job.

Both community members and SNA staff discussed the importance of a *greenhouse coordinator* to oversee the facility. Three specific challenges were identified when it comes to finding and maintaining a coordinator.

The first is consistent *funding*, which Natalie indicates is a common concern for community associations like SNA:

The way a lot of funding works is funders like to pay to build something, to turn an empty lot into something... But these projects require ongoing financial input to maintain them, and that is what we've seen all over SNA's existing gardens.

Even if funding can be acquired, two other challenges that can occur are *skill set* and *continuity*. Anna emphasized the importance of finding someone with the right skill set to run a greenhouse, and Anna and Lia mentioned the importance of ensuring continuity:

The challenge would be, I think, the continuity of someone running it on a regular basis. Whether that's championed by an organization and followed up by volunteers, or sponsorships from various different organizations as an educational tool, [or] other schools in the area, that's another possible way to run it. – Lia

5. Discussion

This research project sought to clear up the uncertainties surrounding the greenhouse's use in the community. By interviewing community members, they were able to share how they believe the greenhouse could best meet the community's needs. Interviewing potential partners provided information about how partnerships could help realize the community's priorities and interests for the greenhouse. Finally, a content analysis of SNA documents and interviewing both current and past SNA staff gave an indication of the original purpose of the project, and how this has evolved until today.

The community members who were interviewed clearly identified how the greenhouse could best be used to benefit Spence. Both Lynne and Anna stated the importance of having a greenhouse coordinator to ensure the space is organized and is used effectively for community connecting. Anna, Susan, and Lynne emphasized the need to involve community members in the project to maintain the space, and to ensure they benefit from the food grown in the greenhouse and the activities that take place within the space. Engaging community members was found by Guthman (2008), and Kato and McKinney (2015) as a crucial step in ensuring that urban agriculture projects meet the needs of those they are meant to serve.

Community members also identified the types of activities they believe should take place within the greenhouse. Anna and Susan saw the potential for the greenhouse to be used as an educational space where workshops could be held for community members. This educational aspect is common practice in other organizations such as Black Creek Community Farm in Toronto which has an outdoor classroom, and FortWhyte Farms, which hosts workshops (Black Creek Community Farm, n.d.; FortWhyte Farms, n.d.).

Providing learning opportunities for community members would also contribute to community food security by increasing food skills (Health Canada, 2015). Food production and distribution was also heavily considered by community members. The greenhouses reviewed in section 2.3 all contribute to food production by being used to grow seedlings and warm weather crops (Black Creek Community Farm, n.d.; FortWhyte Farms, n.d.). This concept aligns with Olivia's idea to use the greenhouse to grow seedlings for community gardens, and with Anna's idea to sell plants at the Ellice Street Festival. But the Black Creek Community Farm and FortWhyte farms have the ability to grow food outside of the greenhouse, which is then distributed to community members. If SNA's greenhouse is utilized strictly for seedlings, this larger distribution of food to the community may not be possible.

Lynne mentioned that she would like to see the greenhouse become a social enterprise in the future. Olivia also identified this as a priority for SNA, as they would like to see the greenhouse be financially self-sustaining, and Natalie discussed how this could be done by possibly growing greens or other produce year-round to generate some revenue. However, Susan cautioned against growing food that may not meet the needs of community members who are food insecure.

As was mentioned in section 2.4, Spence experiences a food mirage, where the largest barrier to food access is economic (Wiebe *et al.*, 2016). This means that if this greenhouse project is to help create better access to food, as is indicated in SNA's most recent five-year plan, it should address some of the economic obstacles in the neighbourhood. As discussed earlier, the greenhouse would create some economic opportunities in the neighbourhood with the greenhouse coordinator position, and by providing work for the First Jobs 4 Youth program. These new job opportunities within

the community could help contribute to reducing economic obstacles to food security, however this impact may be limited to a small number of people. As a result, the priority identified by SNA to make the greenhouse economically self-sufficient may undermine its ability to distribute food in a meaningful way to community members, which was identified as a priority by community members Susan and Anna.

Though some organizations do manage to address food security, provide jobs, and maintain revenue, Daftary-Steel, Herrera, and Porter (2015) warn that income from exterior sources is usually a necessity. Black Creek Community Farm is an example of this, where they do require external funding and partners to be economically sustainable (Black Creek Community Farm, n.d.). Such funding could come from government; however, the Government of Manitoba has recently made significant changes to the way it funds community organizations, rendering this source less reliable. This presents an opportunity for local organizations and businesses to form new partnerships with SNA, to ensure an economically sustainable greenhouse that meaningfully addresses food security.

A partnership with West End Biz offers a promising opportunity to partner with multiple businesses in the community. These businesses could offer economic support either through an “adopt a plot” program as suggested by Lia, where those who purchase a plot may be able to utilize a meeting space in the greenhouse on a regular basis, or they could offer support by purchasing food produced in the greenhouse. Lia was also present at the March 4, 2020 consultation meeting at SNA, and is dedicated to finding ways for the West End Biz to support this project. Diversity Foods’ offer to purchase any produce that is not sold, as long as it is grown in a way that it can be commercially utilized, offers SNA a reassuring fallback for income if any produce is not able to be distributed to community members. The Portuguese Association’s previous effort to build a park in

Spence could potentially be renewed here as well. Zita explained how the investors who were willing to pay for the park in Spence withdrew from the project due to concerns about how the green space would be maintained. It is possible that this funding could be re-explored. Alongside other potential partnerships, all three of these could help SNA ensure the greenhouse is both economically sustainable and addresses food security.

Though Christian from DMSMCA noted they do not have funds or people that they could contribute to the project itself, he did mention how if this greenhouse project is successful in Spence, there would be an interest to pursue something similar in Daniel Macintyre St. Matthews. Research in Oakland and Detroit demonstrates that multiple community-based organizations, social enterprises, urban farms, and networks often work together to address food security, build food sovereignty, and increase food skills (Clendenning *et al.*, 2016; White, 2011). Keeping DMSMCA and other community associations up to date on the progress of the greenhouse may result in the creation of similar food security projects, all of which work together to increase community food security in the neighbourhood.

Though many challenges were indicated by all those interviewed, solutions for these challenges were also mentioned by many. Ensuring that this project does help increase food security in the neighbourhood can be addressed through community involvement, especially of those who require such services. The potential impacts that this greenhouse could have on other local businesses can be addressed through partnerships with such businesses. Safety and vandalism can be reduced through the completion of the rest of the Cumberland Corridor to provide food that is easily accessible to the public and as a result increases foot traffic. Three of the issues related to running the facility, including communication, conflicts between those involved, and

maintenance, can be addressed through hiring a greenhouse coordinator with the appropriate skills and knowledge. Of course, consistent funding is a large obstacle in making this a possibility but making the greenhouse a social enterprise that is economically self-sustaining with the help local organizations and businesses partners may help address this issue.

Overall, many of the benefits, including access to affordable, nutritional, culturally appropriate food, education and skills, and encouraging future community projects, indicate that this project does have the potential to increase community food security (Hamm and Bellows, 2003), increase food skills (Health Canada, 2015), and make improvements towards food sovereignty for Spence (Laidlaw and Magee, 2014). The benefits also indicate the potential for this greenhouse to simply be a positive and exciting project for the community to enjoy.

5.1 Improvements and Future Research

During the Cumberland Corridor Consultation meeting on March 4, 2020, four of the people who were previously interviewed separately for this research – Olivia, Christian, Lia, and Lynne – were present. I had the opportunity to observe them discuss ideas related to the corridor and the greenhouse, some of which were discussed during our interviews, but it was clear that the combined conversations were leading to new ideas as well. This event demonstrated this research might have been improved by collecting data through group interviews or a workshop of community members and partners, rather than individual interviews to be synthesized by a researcher.

This research does not offer a clear pathway forward for SNA, but rather suggests how community members, potential partners, and SNA staff can move forward together. Further understanding of this project could be reached through research that includes a larger number of community members, including community members who are food insecure. Future research could also include the potential partners that were identified by interviewees and listed in Table 1, as well as other organizations in or near Spence that already work towards food security, food sovereignty, and/or food skills. An example of this is Mary Jane's Cooking School, which provides education in nutritional home cooking, and already works with other organizations in and near Spence (Mary Jane's Cooking School, n.d.).

Another research avenue that could be taken is to explore whether applying the cooperative model – another form of community economic development (Chamberlain *et al.*, 2015) – to this greenhouse would offer a viable path to ensuring the greenhouse meets food needs in the neighbourhood all the while remaining economically viable. Finally, more in-depth research with organizations that operate similar projects, such as the Black Creek Community Farm and FortWhyte Farms, could provide more information on how SNA could ensure that community food security is at the center of the distribution systems put in place.

6. Conclusion

This research has described SNA's most recent vision for the greenhouse, identified three community members' priorities and interests for this greenhouse project, and summarized input from four local organizations as to how they could assist in the realization of this greenhouse. This research has also synthesized these findings into an explanation as to how all three stakeholder groups could work together to address the challenges of this project, as well as enhance its benefits.

Though this research may not have resulted in a clear path towards the realization of this greenhouse as was originally intended, it does provide a glimpse into the complexities of meaningfully addressing community food security in a neighbourhood, and provides crucial information for SNA to consider as this greenhouse likely develops into a social enterprise. Ideally, this research has helped SNA take one more step towards realizing a longstanding and important food security project for residents of Spence.

Finally, this research has also illustrated some of the challenges that are experienced by community associations and community members as they work towards addressing structural issues, such as food insecurity, at a community level. It shows that in the absence of meaningful structural changes, such challenges have the potential to be addressed at a community level when multiple stakeholders, such as those interviewed for this research, work together. It is at this level where meaningful action can begin and may one day lead to a network of community initiatives that work together to ensure enhanced community food security, food skills, and food sovereignty, throughout the city.

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Appendix 1 – Questions for Community Members

1. Intro/warm up questions
 - a. How long have you lived in the Spence Neighbourhood?
 - b. What is your favourite part about living here?
 - c. What is a challenge about living here?
 - d. How long have you been involved with the Spence Neighbourhood Association?
 - i. How did you get involved?
2. Current SNA projects related to food
 - a. How are you currently involved with SNA?
 - i. What does this entail?
 - b. Are you or have you been involved with EOS (Environment and Open Spaces)?
 - i. If yes: What type of tasks do you do/have you done in EOS?
 - ii. What types of challenges is EOS trying to address in the community?
3. Greenhouse
 - a. How do you think the greenhouse will benefit the community/Who do you think this project would help most in the community?
 - b. If you were in charge of the greenhouse, how would you use it? How would you want others in the community to use it?
 - i. What would you grow in the greenhouse?
 - ii. What would you do with the produce?
 - iii. Are there any activities or events that you would hold in the greenhouse?
 - c. Do you foresee any challenges in making sure that this project succeeds?
 - d. Do you think other organizations in this neighbourhood should contribute to this project? And if so, how could/should they help make it a reality?
 - e. Are there people or projects in the neighbourhood that you think would work well with the creation of this greenhouse?
 - f. Is there anything I haven't asked you that you would like to share?

Appendix 2 – Expedited Interview Questions for Community Members

1. What will this greenhouse do for the community?
2. What is a challenge that will have to be addressed to make this greenhouse a reality?
3. Who should be involved in this greenhouse?
4. If you were in charge of the greenhouse, how would you use it?

Appendix 3 – Interview Questions for Potential Partners

1. Intro/warm up questions
 - a. How long has your organization been located in the Spence Neighbourhood?
Note: not all organizations are located within the neighbourhood, some are within proximity. (use discretion with this one)
 - b. What role does your organization play in this community? *(use discretion with this one)*
 - c. What is your role within the organization in which you work?

2. Current relationship with Spence and SNA
 - a. How do you interact with members of the community? For example, do you hold events to engage community members, or do you have a formal engagement plan?
 - b. Has your organization partnered with community organizations in the past to work together on a specific project?
 - i. (YES): Is this something you would consider doing again?
 - ii. (NO): Would you consider working with a community organization?
 - c. Are you familiar with the Spence Neighbourhood Association? If yes, from your understanding, who are they and what is their purpose?
 - i. (YES): Have you worked/are you currently working with SNA on a specific project?

3. Greenhouse (provide explanation of the project)
 - a. What do you think about this greenhouse project?
 - b. Who do you think this project could help in the community?
 - c. If the opportunity presents itself, would your organization consider partnering with SNA to make this project a reality?
 - d. Do you think this greenhouse could be beneficial to your organization or to customers/clients in your organization?

Appendix 4 – Interview Questions for Previous and Current SNA Staff

1. SNA

- a. How long have you been/were you working with SNA?
 - i. How did you get involved?
 - ii. Were you involved in SNA before working for them?
- b. What is/was your role in this organization?
 - i. How was your role related to food security?
 - ii. How were you involved with EOS?

2. Greenhouse

- a. What is/was your role in relation to the Cumberland corridor, and the greenhouse specifically?
- b. When you are/were working on that project, what do/did you envisioning for that greenhouse?
 - i. What would you grow?
 - ii. What would you do with the produce?
 - iii. Activities?
- c. What are some challenges that you believe might be encountered during the creation of the greenhouse?
- d. How do you believe it will benefit the community?
- e. Are there any assets/people/organizations that you believe should be included in this who have not yet been?

3. Before we end, is there anything else you would like to add?

Appendix 5 – HTFC’s Visual Design of the Cumberland Corridor

