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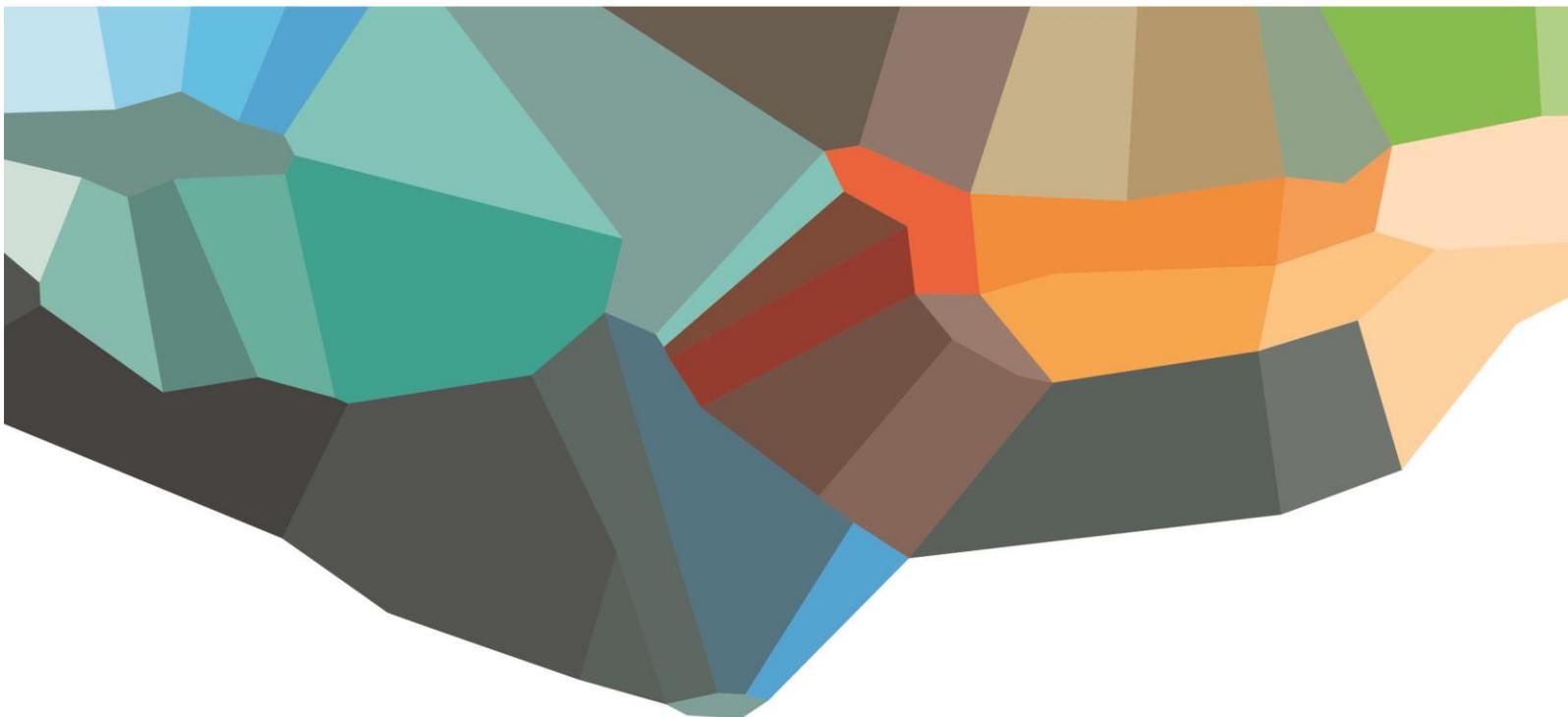
# MASTER THESIS

**Green Social Work and Community Gardens:  
A case study of the North Central Community Gardens**

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Course Code: SA357S  
Submitted: November 15, 2015**

Thesis submitted in partial fulfillment of the requirements for The Master in Comparative Social Work

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## **Acknowledgements**

I would like to first thank the volunteers, organizers and staff of the North Central Community Gardens without whom this project would not have been possible. Their insights and candidness through interviews and conversations was invaluable to me and I cannot thank them enough for their time and patience through the research process.

I would also like to express my gratitude to:

**Berit Skorstad-** My UiN academic supervisor who offered me consistent support and patience through the entire process of writing. Her guidance and feedback was critical in creating my final product.

**Doug Durst-** My University of Regina Professor whose work in developing a relationship with the University of Nordland made it possible for me to study abroad in Norway. His guidance was invaluable to me during the initial stages of designing my research questions and building an outline for my paper.

**Heidi Leighton-** My fellow masters student whose encouragement and insight was a huge help to me. Our regular “motivational meetings” kept me on track and focused on my goals.

**Carole Eaton and Carole Stephenson-** My managers at the Phoenix Residential Society who agreed to give me time off from work in order to complete the project. Without their support I would not have been able to finish the final product.

Finally, I would like to thank my friends and family who supported me through the whole process of writing this paper.

## **Abstract**

This research project is a case study of the North Central Community Gardens found in Regina, Canada. Information was gathered through interviews with volunteers, informal conversations, the community newsletter and the garden's Facebook page. Historically social work has always had a lack of involvement with environmental issues and as such a new framework for social workers was developed called Green Social Work. As Green Social Work is relatively new it is difficult to understand what it looks like in practice. This case study investigates how well community gardens serve as a practical example of Green Social Work. The project finds that the North Central Community Gardens reflect to varying degrees the key principles of Green Social Work by acting as a hub to educate, restore culture, mitigate climate change, create green space, enhance social capital and make the community safer.

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## **Introduction**

As massive floods, hurricanes and droughts continue to make appearances around the world with ever increasing frequency and intensity and modern industrialization continues to pollute the air, water and soil of the earth, it is apparent that the world is truly in a time of crises (Domenelli, 2012; Gray, 2013; IPCC, 2014). Similar to economic crises like unemployment and poverty, environmental crisis affect poor and marginalized groups long before people with privilege and power (Domenelli, 2012; Gray, 2013; IPCC, 2014; Kurtz, 2003).

Traditionally social worker's main focus was on charity and aiding the destitute in solving problems that the poor had ostensibly created for themselves. It did not take long for social workers to recognize that while people needed immediate help, if they wanted to produce real change they would have to combat the economic and social crisis that produced such desperate conditions in the first place. Social work is once again in a crisis of conscience as it fruitlessly continues to try and keep up with the after effects of environmental disasters on its clients and the world at large. It is now clear that the time to begin examining ways that the profession can proactively contribute to struggles against environmental devastation has arrived. The struggle for environmental justice has already been going for several hundred years amongst Indigenous peoples and more recently amongst environmental activist, thus offering social workers an excellent blueprint to follow (Domenelli, 2012; Gray, 2013). As a result of the void in social work literature about environmental justice a new theory called Green Social Work (GSW) was produced. As the framework is still very young it is difficult to understand what GSW might look like in practice. The purpose of this research is to examine the extent to which the North Central Community Gardens (NCCG) in Regina, Canada can be defined as Green Social Work. The four main questions I hope to address in this research include:

1. How much does the NCCG relate to the main components of Green Social Work
2. What have been the main challenges for the NCCG?
3. What is the primary role the NCCG plays in the community?
4. What are the main goals of the NCCG moving forward?

## **Green Social Work**

Green Social Work (GSW) is a theory that was defined by Lena Dominelli and outlined in her book published in 2012, "Green Social Work: From Environmental Crisis to Environmental Justice". Dominelli defines Green Social Work (GSW) as:

*“A form of holistic professional social work practice that focuses on: the interdependencies among people; the social organization of relationships between people and the flora and fauna in their physical habitats; and the interaction between socio-economic and physical environmental crises and interpersonal behavior that undermine the well-being of human beings on Planet Earth” (2012, p. 25).*

Dominelli (2012, p. 194) goes on to describe the key components of her GSW model:

1. Respect all living things alongside their socio-cultural and physical environments
2. Develop empowering and sustainable relationships between people and their environments;
3. Advocate for the importance of embedding the social in all economic activities including those aimed at eradicating poverty;
4. Question the relevance of an industrial model of development that relies on over urbanization and over-consumption as the basis for social progress; and
5. Promote social and environmental justice

GSW is explicitly political and criticizes traditional social work frameworks such as ecological or environmental social work for relegating the definition of environment to include only the social (Dominelli, 2012, p.25). Dominelli (2012, p. 26) argues that *“mainstream ecological writings are implicitly political in that they ignore power relations based on existing geo-political social structures, even though these define identity issues, power relations and resource distribution”*.

### **Respect all living things alongside their socio-cultural and physical environments**

This aspect of GSW refers to the way the framework not only addresses the need to maintain vigilance about the physical environment but to ensure that environmental concerns are interwoven with respect for the many cultures that make up the world and their respective ways in which they relate to the earth. Historically in social work the use of a “one size fits all” method has been used with results that range from ineffective to damaging (Dominelli, 2012, p. 195). Indigenous Peoples, for instance, often already have systems in place for how a community looks after one another and how that community interacts with the natural world. GSW emphasizes the importance of respecting the natural environment but is also aware that different contexts call for different approaches and that people closest to a particular subjectivity should always have their expertise recognized. Simultaneously, it is important to

understand how the local affects the global and vice versa, Dominelli (2012, p. 195) describes these considerations by saying that:

*“GSW practice promotes the idea that practice is locality and culturally specific, while at the same time espousing the view that there are important concerns that are embedded in the interdependencies that exist between human beings and the Earth’s flora and fauna that are relevant across the world and that must be incorporated into local practices if the well-being of all is to be assured”.*

### **Develop empowering and sustainable relationships**

Developing empowering and sustainable relationships between people and their environment refers to the need for green social workers to avoid creating undemocratic methods of pursuing environmental justice and community development. GSW acknowledges that for people to become truly involved in an environmental justice movement and for that movement to be sustainable, people need to feel a sense of ownership and empowerment from their experience. It is imperative that green social workers pay attention to how work is done and ensure an environment in which people feel the experience is inclusive and empowering rather than expert-led and disempowering (Dominelli, 2012, p. 201).

### **Advocate for the importance of embedding the social in all economic activities**

In Contemporary capitalist culture the goal is to produce as much profit as possible and to make social and environmental considerations only to the extent that it will aid the perception of the brand to potential consumers and thus, more profits. The effects of industrial pollution in the atmosphere, oceans and land can be seen in the global increase of asthma, respiratory problems and a range of disabilities (Dominelli, 2012, p. 63). GSW is not only concerned with raising awareness about the need for things like mining and industrial production processes to make social consideration but to also consider organizations aimed at eradicating poverty. This would refer to the need for social justice organizations to make considerations in regards to how their actions directly affect the environment, for instance, ensuing things like recycling are made common place but also to ensure that these organizations have policies and positions that are explicitly critical of actions detrimental to the Earth’s well-being.

## **Question the relevance of an industrial model of development**

Regardless of appearing to be an almost impossible task, it is imperative for green social workers and organizations to question the role of the current industrial model of development and take action at the macro level. While hyper-urbanization, agribusiness and consumer cultures have provided many opportunities for some people, it has also excluded around 50 percent of the world's population who live in poverty and live in places with degraded environments where the depletion of the Earth's resources has already occurred (Dominelli, 2012, p. 198). In an effort to produce opportunities for their own profit, businesses over the past century or so have concentrated job opportunities, infrastructure and industry into urban centers (Dominelli, 2012, p. 42). The fast pace of urbanization and its ongoing expansion continues to put stress on the ability of physical urban environments and their resources to meet people's physical, social, recreational, cultural, political and economic needs. Large urban centers also produce issues in regards to ensuring people have access to communication systems, water, utilities and sanitation infrastructures, furthermore hyper-urbanisation and fast population growth in limited space sets conditions for inferior-quality housing, places where infectious diseases can spread easily, deteriorating air quality and various forms of environmental degradation (Dominelli, 2012). Based on these factors GSW believes that it is important to promote policies and conditions that allow people to de-urbanize cities and to make rural living a more viable option in the contemporary world.

## **Promote social and environmental justice**

GSW emphasizes the importance of championing both social and environmental justice and the realization that the two are not mutually exclusive. Dominelli (2012, p. 195) says that, "*Green social workers hope to play a key role in eradicating poverty while caring for and protecting the environment within a framework of social and environmental justice, human rights, active citizenship and a critique of neoliberal capitalist modes of production, distribution and consumption*". To this end GSW requires that practitioners are involved in both social and environmental justice and respect the symbiotic relationship between the Earth and its occupants. This premise also encourages social workers to not ignore one form of justice in pursuit of the other as ultimately it will do damage to both.

# **Literature Review**

## **How do Community Gardens fit into North Central?**

In the next sections of this paper I will offer some background information about community gardens, the North Central neighbourhood and the history of Indigenous Peoples in Canada. As North Central is a very complex area in terms of history and socio-economic context I believe it is important to understand its challenges and successes and how the community gardens relate to both. I will also discuss the history of Indigenous Peoples in Canada as the history has had a dramatic effect on the quality of life for Aboriginals in Canada today, this is important in the context of the NCCG as the Indigenous population of North Central is very high.

## **Community Gardens**

Community gardens have existed in many different iterations throughout history varying in both organizational format and political meaning. In the contemporary context Okvat defines community gardens as:

*“plots of land used for growing food by people from different families, typically urban-dwellers with limited access to their own land. Distinct from top-down efforts by government organizations to create green spaces such as botanical gardens, community gardens are bottom up, community based, collaborative efforts to grow food” (2011, p. 374).*

While it is useful to have a definition of community garden some authors propose that the community garden movement has become so vast and diverse that it is best to allow garden participants to define community gardens on their own terms. Ferris (2001, p. 560) as cited by Pudup (2008), for instance, proposes that *“it is not very useful to offer a precise definition of community gardens as this would impose arbitrary limits on creative communal responses to local need”*. Within this idea of maintaining a flexible definition it should be noted that the differences amongst community gardens can include locations, individual versus collective plots, crops, goals ranging from simply wanting fresh produce to educational or political and many others (Dow, 2006).

## **History of Community Gardens**

While a discussion of the entire history of community gardens goes beyond the scope of this paper, I feel it would be useful to offer some of the history of community gardens and what their significance has been. During both World War One and Two there was a large

demand on food production and as a result the American government launched a propaganda campaign encouraging people to “*do their part*” and grow community gardens (Dow, 2006). The food from the gardens was used to reduce strain on food production, sold for money that would support the war efforts or sent to the troops (Dow, 2006). The campaign encouraged people that “*food is no less a weapon than tanks, guns, and planes... the duty of every loyal citizen is to do everything possible, to accept any sacrifice, so that there shall be plentiful supplies of food for the fighting forces and facilities delivering them*” (Warman, 1999; Dow, 2006 citing Bassett 1981, p. 7).

During a period from roughly the mid 1960’s to late 1970’s a large counter-culture movement took place in North America. It was a period in which government control and social injustices were heavily scrutinized and urban gardening became one form of resistance against community collapse, food additives, increasing energy consumption, and reliance on foreign markets for food (Dow, 2006; Quayle, 1989). The shift of gardens from a representation of nationalism to expression of counter culture is a trend that has maintained to present day.

### **North Central in Context**

North Central is a neighbourhood in the core area of Regina, Canada. Regina is a relatively small city with a population of 210,556 people and its primary industries include agriculture, steel and manufacturing and energy and environment (City Data, 2015). North Central has a population of approximately 10, 000 people of which 38.6% identify with at least one Aboriginal group while in the rest of the city of Regina 9.3% of the population self-identify with at least one Aboriginal group (Office of Urbanism, 2009, p. 16) The average household income in North Central is \$34, 976 while the city-wide average is \$67, 172. In terms of housing 47% of homes are rented dwelling which is significantly higher than the city wide average of 32% rented dwelling and 20% of the homes in North Central are in need of major repairs compared to 8% citywide (Office of Urbanism, 2009, p. 44). The North Central Community Legacy Study (2009, p. 46) notes that several “*boarded up homes detract from the quality of the neighbourhood*”. Dewdney Avenue is the main location of businesses in the neighbourhood and is composed of mainly pawn shops, thrift stores, confectioneries and community agencies (Office of Urbanism, 2009, p. 16). While there is a high amount of community agencies in North Central the Legacy Study (2009, p. 35) notes that the “*significant social challenges in the neighbourhood remain unabated, despite an unprecedented amount of programming and community work*”. As with many core

neighbourhoods in North America it has a multiple social and economic difficulties (Office of Urbanism, 2009). North Central is the neighbourhood I grew up in which is partly why I decided to write my thesis on their community garden project. It is not a simple neighbourhood to describe as social struggles are laced in a rich tapestry of historic oppression, stigma and unexpected successes. As I spoke with people involved with the North Central community gardens it became apparent that there are two desires present in most of the community organizers that are both contradictory and necessary to achieving the goals of the community. The first is that people want something done about the social and economic issues in North Central and want the city to be aware of the problems that exist there, for instance, alcohol and drug abuse, prostitution, unsafe housing and a plethora of other problems. The other idea is that the community, justifiably does not want to be defined by these problems and aims to shake the stigma of being “*the hood*” as some of the interviewees jokingly call it and hope to generate a reputation for cutting edge community organizing and cultural celebration. As I grew up in North Central I can offer a description of it that helps put it in context based on my own personal experiences combined with newspaper articles, past community research projects and feedback from my interviewees.

In 2007 an article in Macleans Magazine was published which titled Regina’s North Central area as “*The Worst Neighbourhood in Canada*”. The article was full of alarming anecdotes about the community, for instance, this is an excerpt from the article involving an interview with the then president of the North Central Community Association:

*“The tenant cried when he lifted his shirt to show the bites the rodents inflicted as they crawled over his mattress at night, Brenda Mercer, the president of the North Central Community Association is often first through the door. She rattles off other low-lights: people using the oven to heat their homes in the dead of winter. The man with the mousetraps on his stove top to combat the vermin that kept snatching his dinner from the frying pan. Multiple dwellings with no plumbing because the occupants have ripped out the copper pipes and sold them for drug money. “We’re living in a Third World country here” she says”* (Office of Urbanism, April 2009, p. 55).

Having grown up in North Central myself these excerpts are not all that surprising to me. When I was a young child it was common to see sex trade workers at the corner store, several house fires a year resulting from both arson and bad electrical wiring, boarded-up homes, street fights, at one point my family’s dog was kidnapped and held for the ransom of \$50 and we experienced several home robberies in which only food was stolen. While at first glance it can seem as though North Central Regina is simply a dangerous place that has nothing good

coming out of it, when looking at it in the context of having to survive the consequences of colonization, neo-liberalism and the general resource deprivation it is actually a pretty resilient place. In spite of all the challenges the community faces there is still a strong core group of volunteers, organizers and artists that keep a steady flow of cultural celebration, anti-poverty and awareness raising activities and mutual aid projects like community clean ups and gardens. In one of my interviews my informant offered a description of the more positive aspects of North Central:

*“when I tell people that I live in North Central they look at me like I have three heads and I have to explain to them that my community rocks. I would not live anywhere else we have large yards, the community we have, I know all my neighbours. If I need, I mean there are not a lot of gardening tools I need but if something that I need or I broke something I just go across the street to my neighbours place and I say “yo can I borrow that?” and they say “ya take one and keep it however long you want”. If our neighbours need dirt we have a dirt pile, I’m like “come on over”. It’s like a small town community feel you know? Where you know your neighbours... We have become such a disconnected society it’s sick. And you know I find with North Central you have to rely on your neighbours, we’re not all rich, we are working class or you know below the poverty line in that area. And it’s like we have to rely on our neighbours like we used to and that’s not a bad thing. That builds community.”*

### **North Central Community Gardens**

At time of this research project the North Central Community Gardens (NCCG) were operating three gardens all within roughly five city blocks of each other. The three locations included Albert Scott School at 1264 Athol St, a church where the garden is called “The Oasis” at 1265 Garnet and finally 930 Garnet which was an empty lot that has a private owner who agreed to let the NCCG set up a garden. The original goals of the gardens were to foster education of how to garden, build community, gain sustainable food and beautification of the neighbourhood and many of the volunteers feel they have achieved these goals to varying degrees. Here is an excerpt from the North Central newsletter, The Community Connection, describing the first growing season of the gardens:

*“An amazing project was dreamt up back in the spring. A vacant lot on the 13-block Rae Street had been available for a few summers, but North Central Community Association lacked the person-power to get it started. Grow Regina approached NCCA and together we plotted and planned a community garden. With only a few weeks to ‘plant the seeds’ of the*

*idea and to raise some sponsors, this partnership of North Central residents and city-wide rabid gardeners dug in” (Morier, fall 2007, p. 4).*

The NCCG project has been so successful that it was one of three winners for a \$1,000 cash award offered as part of a national gardening initiative competition put on by Vision T.V and Merit Motion pictures, which produces a television program called the Recreating Eden series (Mcloed, July 2008, p. 1). Based on my interviews the consensus seems to be that besides a few setbacks the gardens have generally improved each year in terms of volunteer turn out, gardening tools and community connections.

While the garden on the private lot and at Albert Scott school are more or less similar to one another in the way they are run and what they grow, the Oasis project was started with the goal of implementing permaculture practices into it. The North Central Community Association (NCCA) was interested in starting a permaculture garden but since all of their lots were on leases to the city that could be cancelled at any time they were reluctant to start a permaculture project as it requires a long term investment in the soil and infrastructure. Ultimately, the Oasis project was started because the NCCA managed to lease a church yard for an agreed five year evaluation period at which point they would review if they wanted to continue.

### **Canada and First Nations Peoples**

It would be difficult to give a full explanation of the colonial history in Canada but I feel it is important to understand the context in which Canada’s Indigenous population, also referred to as First Nations Peoples, exist. The importance for this understanding stems from the high population of First Nations Peoples in the North Central neighbourhood and the link between the atrocities which colonization subjected them to and the struggles that the North Central residents and the community gardens are now trying to help reconcile.

Over the years the Canadian state has tried several strategies to assimilate First Nations Peoples, some of which were more overtly violent than others but in general the degree of violence First Nations Peoples were subject to was governed by “*basic economic needs and strategies*” rather than ethical considerations (Hill, 2009, p. 43). The assimilationist strategy has been an ongoing theme in Canada’s history, as Gordon (2010, p. 102) writes “*for more than a century the state has sought to destroy the economic and cultural fabric of First Nations and to integrate Indigenous people into the labour market*”. In 1894 residential schools were made compulsory for all First Nations children (Hill, 2009, p. 49). This meant that children were literally pulled out of their homes by the state and taken away to attend

European style schools. The residential schools were preferred by the state because children could be fully isolated from Indigenous communities and assimilated into a more European culture, at least that was the desire (ibid). Within the school *“Native languages were forbidden and all customs, values, religious traditions and even clothing were to be replaced by European forms”* (ibid). Hill (2009, p. 51) goes on to say that *“sexual and physical abuse were common characteristics of these schools, and their effects have been devastatingly effective in partially acculturating generations of Native Peoples.”* In describing residential schools Gordon (2010, p. 74) says that:

*“Residential schools were viewed by the state officials and the church as an antidote to the political, economic, cultural and spiritual resilience of Indigenous Peoples. If other reform efforts did not take, then the answer was to completely obliterate young children’s connections to Indigenous culture by kidnapping generations of them and reprogramming them without knowledge of their spiritual traditions, hunting, and trapping skills, language and other cultural practices, Indigenous youth would have little choice but to integrate into Canadian society”.*

This process of removing Indigenous children from their communities and indoctrinating them to a more Euro-centric way of life has been cited as one of the main reasons for the massive rates of incarceration, drug and alcohol abuse, and suicide rates amongst First Nations Peoples in the contemporary context (Totten, 2009). These socio-economic issues have also led to a situation in which Canada today now has three times the amount of Indigenous children in the care of the state than what there was at the peak of residential schools (ibid).

### **What are the Benefits of Community Gardens?**

In the next sections of this paper I will examine what I found in the literature to be the most common benefits of community gardens. I noticed five primary themes while researching the benefits of community gardens including educational, psychological and cultural, social capital, green space and crime prevention. Later on in this paper I will also use these five themes as a criteria by which I can evaluate the North Central Community Gardens.

### **Education and Community Gardens**

The literature has demonstrated that Community Gardens play a large role in educating communities in various ways (Cutter-Mackenzie, 2009; Hale, 2011; Liberman, 2007). I divided the ways in which community gardens educate people into three categories

including; personal health and lifestyle choices, environmental consciousness and practical gardening skills, all of which will be discussed respectively.

### **Healthy Lifestyle Changes**

A common theme throughout garden research has been that participating in community gardens tends to produce healthy lifestyle changes (Cutter-Mackenzie, 2009). This includes things like performing better academically, more social contact, more physical exercise and better eating habits.

It has been found that children who participate in community gardens have seen improvements in their academic performance (Cutter-Mackenzie, 2009). One reason for this could be that community gardens have been found to help treat ADD (attention deficit disorder) which will be discussed further in the mental health section of this paper (Kaplan, 1995). The better academic performances could also be due to the secondary learning that takes place as the result of the gardens. One study, for instance, found that immigrant children working in the school garden had more opportunities to practice their English and learn new vocabulary (Cutter-Mackenzie, 2009). Marie (2009) found that children involved with a school gardening program developed a tendency for self-directed science activities such as measuring and recording the plants growth and drawing pictures of the plants. The school garden study also revealed some interesting suggestions from the children about how else gardens can assist in learning, some examples included adding material to the literacy center and using fruits and veggies from the garden in the science room and looking at them with magnifying glasses or dissecting them (Marie, 2009). Hoffman (2004) looked at the effect of gardening on the academic performance of college aged students by having them participate in a garden for 16 weeks. The study found that gardening gave the students a better sense of self-efficacy and self-esteem surrounding their academic abilities and found that they performed better academically than students not involved with the garden.

Another healthy lifestyle change that research has shown community gardens contribute too is participants getting more exercise and eating a healthier diet. Research has shown that weeding or planting a garden is roughly the equivalent of walking four miles an hour (Fitness, 2000). In addition to the work being done in the garden, the positive association that people develop with the garden and being outside might lead to more physical outdoors activities (Hale, 2011). The healthy food of the garden is another added benefit to the lifestyle of garden participants. Studies suggest that there is a strong link between gardening and positive food choices and that the connection is especially strong amongst children that begin

gardening at an early age (Corrigan, 2011). McIlvaine-Newsad (2013, p. 388) performed a study on a children's gardening program and noted the comments of a parent whose child was involved with the program *"This participant... repeatedly said that his daughter never ate vegetables before gardening but now eats everything she grows, exhibiting the nutritional benefits of gardening"*. Hale (2011) found that children's association with the positive aesthetics of a garden, for instance, the tactile, emotional and spiritual elements of the garden, led to positive perceptions about the nutritious food itself. Hale offers a quote of one of his participants along with some analysis to exemplify the point:

*"When you grow it, like you said, it's just much better. And so you want to eat more of it. It's not yucky vegetables. It's wonderful and plus you grew it"*. This quote illustrates how the emotional (e.g., sense of accomplishment) is interconnected with the sensory (e.g., taste) to support gardeners' perceptions that the food they grow is *"better" than other food*" (2011, p. 1859).

Lieberman (2007) found that children involved in community gardens were more likely to enjoy eating vegetables raw as opposed to well-cooked or heavily dressed and that children demonstrated more willingness to try new vegetables and varieties.

Finally, the element of increased social connectedness and social capital is a healthy lifestyle change associated with gardening. This has been demonstrated in several studies that indicate gardens offer an excellent opportunity for people to not only expand but diversify their social circles (Teig, 2009; Grabbe, 2013). Some examples include seniors pairing their knowledge with the physical abilities of younger people, new immigrants making friends with locals and opening up opportunities for cultural exchanges, and some otherwise isolated or marginalized populations finding a community to belong too, for instance, homeless people or people with mental illnesses. These topics will be discussed further in the mental health, social capital and cultural identity sections of the paper respectively.

### **Environmental Consciousness**

A common theme in community garden research is the sense of reverence that the participants develop for their food and their environment in general. Studies have shown that not only does participating in community gardens foster more respect for the environment but it also shifts people's mindsets to a more eco-centric view as opposed to an anthro-centric view (Mayer-Smith, 2007).

Lieberman (2007, p. 92) found that children involved in community gardens tended to recognize the amount of hard work growing food requires. Lieberman (2007, p. 92) says that

the children working in the garden “*developed an awareness of the time and physical labor put into vegetable production. For some, this was a new consciousness*”. This is particularly important as in an age of fast food and microwavable dinners there has come a powerful divide amongst people and knowledge of where their food comes from.

A study that teamed children and elders to work on a rural garden/ farm to observe the effects on children’s environmental consciousness found that the experience instilled a sense of responsibility to the environment as well as a sense of connectedness (Mayer-Smith, 2007). The study found that the children who participated in the garden had a shift from seeing the environment as an object or place to a view characterized by the interconnectedness of humans and environment. Mayer-Smith (2007, p. 82) offers a quote from one of the children to help exemplify the children’s raised environmental consciousness;

*“The farm teaches you about the environment and how it interacts with things around it... Like how the insect interacts with the plant and how the plant interacts with us and how we really depend on each other”.*

The revelations amongst the students was not isolated to their own work in the garden but also the broader global context and the affects industrialization has on the planet as a whole.

Several of the children involved in the study voiced concerns about the air, water and animals on the Earth and the effects that human pollution has on them. The children also mentioned that they felt a moral and practical responsibility to the environment after having seen not only how much it provides for people in the context of food but also how vital the Earth’s bounty is to further human survival (Mayer-Smith, 2007, p. 82). Mayer-Smith (2007, p. 82) illustrates the point with a quote from one of her child interviews,

*“It’s very important to take care of the environment because we rely on it... like everything comes from our environment... and we should keep it healthy if we want to continue living because without the environment we cannot grow food”.*

### **Practical Gardening Skills and Nutritional Knowledge**

The practical gardening skills are certainly one of the more intuitive components of education from community gardens. Based on the literature it seems as though gardening skills generated by community gardens come from both informal and formal methods of education (Harris, 2011; Hale, 2011).

The informal aspect of education in community gardens refers to the knowledge gained by people through simply interacting with the environment and their fellow gardeners. Examples of this could include gardeners exchanging anecdotes about gardening strategies

they have tried in the past and what the outcomes were like or simply working in the garden collectively learning through trial and error. Mayer-Smith (2007, p. 83) gives a description of how working in the garden offered a chance for children to engage in some experiential learning regarding the natural environment;

*“As they nurture food crops, the children gain knowledge of what is required to help plants grow. They learn about soil characteristics and the nutrients their plants require. They discover soil is teeming with life and learn to distinguish helpful insects from pests. They learn about growing season, germination, growth patterns, leaf structure, and the water, light, and staking requirements of the plants they tend. They also come to understand that caring for plants requires patience”.*

A similar study with adults also found that directly engaging in the process of gardening offered an opportunity to gain knowledge and that the interactions between gardeners was just as important. The study found that gardeners gained knowledge by watching each other, asking each other questions and experimenting and then sharing the results (Hale, 2011).

The more formal aspect of learning within community gardens is generally exemplified by workshops, manuals and orientations. The formal aspect of learning is a great opportunity for gardeners to be exposed to new ideas and practices that they might not otherwise be able to access. In Harris (2011, p. 24) it was noted that *“The wider community benefits from community gardens when the gardens have open days- these often include workshops on composting, grafting and permaculture”*. The formal aspect of community gardens offers a chance for people that cannot participate regularly in the gardens a chance to still be a part of the community and to gain knowledge.

While the majority of the literature I observed found that people gained knowledge about the gardening process through taking part in community gardens I did find one article which contested this. Cutter-Mackenzie (2009, p. 131) said that while the children seemed to enjoy participating in the gardens they did not appear to have much agency or say about decision making and also did not appear to know much about the gardens they were working in. The article offers an example of a child that seemed to not fully understand what they were working on;

*“One child took a photo of various vegetables he had planted and made the note that he was not sure what was growing, but he had helped plant it... Further examples like this were apparent in the children’s research revealing that their actual knowledge of plants was lacking”* (Cutter-Mackenzie, 2009, p. 131).

It should be noted that I did not find any examples of this amongst studies of adult gardeners and that Cutter-Mackenzie (2009) admits that the aim of the program was not scientific knowledge but rather developing environmental consciousness amongst the children which the study found had been successful.

### **Restoring Cultural Identity and Fostering Multiculturalism**

As food is a necessity to all people it is no surprise that it plays a large role in culture. It is apparent in the way people grow, prepare and serve it and how the customs and traditions vary all around the world. With community gardens appearing in many diverse locations it is understandable that they would attract a diverse population. In the section I will discuss the ways in which community gardens can aid in restoring lost cultural identities and de-colonizing minds, help new immigrants maintain a sense of home and how they help foster cross-cultural relationships.

Even under the best circumstances it can be a difficult transition for someone to move away from their home country to a new place. Research has shown that community gardens can actually alleviate some of the difficulties people experience after having freshly immigrated to a new place (Cutter-Mackenzie, 2009). Cutter-Mackenzie (2009) studied a multicultural school's garden that had the goals of offering a space where children could enjoy the natural environment, take part in a cultural exchange and work on their English skills. The study found that the garden space facilitated a strong sense of belonging among students who were formerly dislodged from their birthplaces and created many opportunities for language improving skills. Cutter-Mackenzie (2009, p. 133) notes that it was common place for both migrant and local children to discuss the different cultures; *"It was observed that the children's culture became a rich source of "everyday conversation" in the garden spaces, in addition to acting as a space for improved cultural awareness and sensitivity among the students and teachers"*. The paper also shared a log entry from the researcher offering an example of what the cultural exchange looked like in practice;

*"I quietly sat with a group of children as they talked about the traditional way of eating in Afghanistan with the right hand and no cutlery. A child modeled a hand-washing ceremony that typically takes place before a meal with a special bowl called a "haftawa-wa-lagan". He talked about how a young child will usually pour water over a guest's hands. He then proceeded to pour water over my hands. Immediately following this several children from a Sudanese background talked about how this is similar to the Arabic custom of pouring water*

*over the hands of the guests using the Ebrig, a shiny copper ewer”* (Cutter-Mackenzie, 2009, p. 129).

Community gardens have also played a role in giving an opportunity for people to reclaim some of their cultural heritage after it has been lost due to colonization or marginalization. Guitart (2012, p. 367) found that *“enhancing cultural heritage”* was on the list of most common benefits people had experienced as the result of community gardens. Similarly Hale (2011, p. 1858) found that *“the act of designing, planting, and tending the garden helps... affirm cultural gardening practices and therefore express an important part of... heritage”*. Some community gardens have also been seen as a tool to help heal Indigenous Peoples from the effects of colonization by offering an opportunity to engage in traditional cultural practices with their leaders while simultaneously redeveloping a relationship with Mother Earth (Mundel, 2010).

Community gardens have demonstrated the ability to be a place in which different cultural backgrounds can come together and be celebrated. Guose (2014, p. 1103) noted in his research that gardens can serve as a place to bring together people that might not necessarily interact,

*“(the participants) experience the garden as a shared space for white and black residents to bridge cultural differences and build connections between each other around the shared activities of growing and eating food”*.

As mentioned earlier Cutter-Mackenzie (2009) had similar findings in that the students and teachers reported to be more culturally sensitive or aware as a result of working in the gardens and taking part in the informal cultural exchanges. Walter (2013, p. 533) found that community gardens are an excellent opportunity to celebrate diversity and bridge cultural gaps; *“Community gardens can also act as sites of multicultural learning for marginalized immigrant peoples, as well as places where interactional cooperation, environmental justice and anti-racist education can be enacted”*.

### **Helping with Mental Health**

There is an abundance of research that demonstrates the psychological benefits of interacting with natural environment and being part of a community thus it is no wonder that community gardens have been shown to increase mental wellness (Clavin, 2013; Grabbe, 2013; Hale, 2011; Okvat, 2011; King, 2012).

The notion that the natural environment is beneficial for mental health is not a new concept but for the most part it is knowledge that has only existed in traditional and

Indigenous circles. In recent years, however, it has become more common place to discuss the environment in the same conversations as mental health and is evidenced in emerging fields like ecotherapy and conservation psychology (Buzzell, 2009; Clayton, 2009). By comparison to other mental health initiatives, gardens are relatively affordable and accessible and yield excellent benefits to the gardeners especially in the context of children and marginalized populations. A survey of children diagnosed with attention deficit hyperactivity disorder (ADHD) found that conducting common after school activities in green outdoor settings as opposed to built outdoor settings without much greenery, was associated with reduced ADHD symptoms (Okvat, 2011). Another study conducted with homeless women who became involved with a community gardens found that the women consistently reported three themes about the effects working in the garden had had on them, they included feeling stress relief, experiencing social inclusion and generating personal change (Grabbe, 2013). Grabbe (2013, p. 258) went on to describe his findings further;

*“The gardening experience interrupted the participant’s negative ruminations, offering stress relief and elements of social inclusion and self-actualization. Gardening is an inexpensive and positive intervention for a population with a high incidence of mental illness and distress”.*

It has been well documented that being part of a community and having a collective goal and a sense of agency improves mood and overall mental health, additionally, the field of positive psychology has demonstrated that performing acts of kindness improves a person’s mental wellbeing (Clavin, 2011; King, 2012; Sinnott, 2013). In the psycho-social rehabilitation model one of the key components is that people are involved with a community and have the capacity to be involved in decision making. As mentioned previously community gardens are a perfect platform for people from traditionally marginalized groups to be involved and to experience a sense of ownership in decision making. The other aspect of community gardens that falls in line with positive psychology theory is that the majority of the gardens do other volunteer work for the community and usually donate some of the harvest to charitable organizations (Hale, 2011; Sinnott, 2013). According to positive psychology these acts of generosity are not only helpful to the people receiving food and services but help the mental wellbeing of the benefactors (Sinnott, 2013).

### **Social Capital, Community Cohesion and Community Gardens**

Social Capital is a concept that essentially believes that social networks have a value beyond themselves. It refers to the notion that people tend to take part in reciprocity when

they are surrounded by people they trust and that everyone taking part generally stands to benefit from the arrangement. A good example of this could include a group of farmers coming together to rebuild a barn that was torn down after a storm. While ostensibly there is only the one farmer gaining the benefits of everyone else's hard work, it is more akin to social insurance in which all of the neighbours know that they would do the same for each other if put in the same situation. Thus, they all stand to benefit from being involved in a social network with high degrees of reciprocity and trust, in other words, they all stand to gain from social capital.

Several studies have illustrated the powerful ability of community gardens to facilitate social capital (Mundal, 2010; Teig, 2009; Porter, 2013; Grabbe, 2013). Okvat (2011, p. 378) found that it is not only the gardeners that develop social capital but also the neighbours in the surrounding areas as availability and proximity of green spaces correlate positively with social contact among neighbours. Tieg (2009, p. 1117) found that that people participating in the gardens commented on how working together in the garden promoted "social connection, trust and reciprocal relationships. Tieg (2009) went on to describe how the people working in the garden he was studying came to depend on each other for support beyond the context of the garden, for instance, babysitting children or offering rides to one another. In one instance Tieg (2009) describes how there was a married couple who enjoyed working in the garden but the husband had become diagnosed with cancer. During the process of the husband's treatments their fellow gardeners offered emotional support to the couple and one gardener volunteered to give the husband rides to the garden to see how it was doing, which helps demonstrate the value of social capital and the networks the couple had built with their fellow gardeners. Similar results were found with Mundal (2010) in that she found that the relationships developed between project leaders at the garden and the participants became a means through which participants were able to access important resources and opportunities. Some examples of this that Mundal (2010) offered included a women who broke her hip and was consistently visited by her fellow gardeners while in the hospital and that it was her fellow gardeners that advocated for her to receive an appropriate wheel chair and walker after her accident. The other example of the use of social capital in Mundal (2010) was that two gardeners who were seeking work were set up with spots in a career development course on behalf of the garden coordinator.

It has been found that social capital in community gardens can also lead to increased food security for the community as people have a tendency to share what they have grown (Porter, 2013, p. 383). Porter (2013) found that food security produced through social capital

in community gardens often lead to an influx of gardening information and resources for the community members to grow their own local healthy food. Porter (2013, p. 383) goes on to say that “*social capital can be a factor in alleviating poverty*”. The social capital developed in community gardens has also led to social activism and awareness raising about socio-economic problems in the community but this will be discussed in the active citizenship section of the paper (Armstrong, 2000; Alaimo, 2010; Porter, 2013). It should be noted that some authors are critical of the benefits of social capital and the amount of volunteer time required to participate in community gardens. It has been suggested that volunteerism plays into a neo-liberal agenda by handing off the responsibilities of the state, for instance, providing healthy food, onto individual citizens and that this is not beneficial in the long term (Ghose, 2014, p. 1094). Issues surrounding these concerns will be discussed in the counter culture section of the paper.

## **Public Green Space**

One of the main benefits of community gardens is the production of public green space. In the next sections of this paper I will discuss how public green space is good for the community which I divide into three sections including green space as a play space for children, public space as a way of fostering active citizenship and critical consciousness and finally how green space benefits the environment.

## **Play Space for Children**

Community gardens have become a practical solution to the challenges of open space inequity including a lack of access to parks and play spaces in low-income communities (Gray, 2013, p. 123). It has been documented that free play in children in a natural environment is helpful in development and is helpful in building a healthy community (Gray, 2013, p. 123). Furthermore, green play spaces have been found as a place that fosters creativity, problem solving, executive function, resiliency, innovation, and exercise of the body and mind (Gray, 2013, p. 123). Community gardens are generally more affordable than other pastimes for children and it has also been found that children’s play is more diverse and long-lasting in natural green environments than, for instance, built in playgrounds with fixed play equipment (Laaksoharju, 2012, p. 195). Creating safe spaces for children to play is of heightened importance in low-income communities as it has been found that there are higher levels of obesity amongst children and that parents in low-income neighbourhoods are more

likely to report a lack of play space within walking distance of their homes (Gray, 2013, p. 123).

Laaksohrju (2012) conducted a study specifically on the behaviours that gardens bring out in 7 to 12 year old children. It was found that the garden environment led to the children engaging in diverse and imaginative play. Some examples of the children's play included things like building water canals, naming and tending to earthworms, hiding, running, climbing and cartwheeling. In some situations it was even noted that the children would use their imaginations to turn the work of the garden into games. Laaksohrju (2012, p. 196) describes how the children would turn themselves into "weed pulling machines" and proceed to pull as many weeds as they could in as little time as possible.

In some cases gardens have noticed the interest of children from the neighbourhood and applied for grants to use the space as a work training area for young adults. The "Kids Working to Succeed" program is a youth job training program that illustrates the ability of community gardens to prepare young people for the work force. Some of the parents who have children involved in the program report that it contributed to their overall character and social development (Ghose, 2014). As mentioned earlier in this paper in the education section, the green space also gives the children an opportunity to organically learn about eco-systems, the environment and nature, an opportunity that is generally hard to find in the context of urban settings.

### **Fostering Active Citizenship and Critical Consciousness**

Historically public space has always been used as a place for sharing ideas and generating critical consciousness (Mitchell, 2003). Many studies surrounding community gardens have demonstrated that they are no exception on the list of public spaces that foster a critical consciousness (Armstrong, 2000; Gray, 2013; Porter, 2013; Tieg, 2009). In my research I have found that a critical consciousness or active citizenship is generated within the gardens in two primary ways. First, are situations in which the location of the garden is put into jeopardy by corporate globalizers, real estate agencies, or social pressures against unregulated open public space (Gray, 2013). These difficulties will put the gardeners into a situation in which they question the social norms surrounding land ownership and who has the right to use space and offers an organic orientation to the politics of space equity in general. Tieg (2009, p. 1118) describes the aforementioned situation within his research findings; *"the descriptions from many respondents about their garden experiences reflected an ongoing battle for survival in the neighbourhood, related to broader land tenure insecurities,*

*crime, and neighbourhood instabilities. The garden social environment engaged members on issues that affected the entire community”.*

The second way in which community gardens affect people’s sense of critical consciousness is by simply gathering people together and giving the opportunity to discuss personal stories and concerns about the community. It allows for people to find that others share concerns about crime, lack of stores, job security and other socio-economic problems. Armstrong (2000, p. 325) describes this shared space phenomenon by saying that: *“Many of the community gardens lead to further neighbourhood organizing by providing a physical location for residents to meet each other, socialize, learn about other organizations and activities/ issues in their local community”*, this quote helps illustrate the ways in which community gardens help foster a critical consciousness and active citizenship amongst both individuals and communities.

Having a garden’s very existence be called into question will generally give the caretakers of the garden a reason to become organized and politically engaged, this will also lead to people learning how to become politically engaged (Gray, 2013). While I will save most of the analysis surrounding space equity challenges for the location section of this paper, I would like to examine a case study surrounding gardens in New York City and how critical consciousness was demonstrated by the participants. In the early 1990’s the Mayor of New York had announced a plan to sell off 400 community gardens, in response, a multifaceted strategy was coordinated by gardeners and supporters to preserve the gardens (Gray, 2013). The challenge to the gardens and by association, public space and environmental sustainability, mobilized many people some of whom were people that had not been activist prior. The campaign launched against the decision to sell off the gardens included, educational workshops, research, mobilization, non-violent civil disobedience, direct action, fund-raising, legal and sustainability strategies, and play to make the campaign fun and creative, for instance, things like street theatre and block parties (Gray, 2013; Shepard, 2011). In one instance there was a group of twelve activists that had entered an auction which was selling off community gardens and the activists handed in envelopes filled with crickets rather than bids in an effort to disrupt the proceedings of the auction (Gray, 2013; Shepard, 2011). While the ethics of such direct action as a means of political expression goes beyond the scope of this paper it does demonstrate that the gardeners were engaged politically, as does their entire campaign. I would make the argument that ultimately the gardens gave the gardeners a greater sense of both national and global citizenship but also the desire to seek out

skills like running an activist campaign which would make them more active citizens and more critically conscious.

The second way in which community gardens foster a sense of critical consciousness and active citizenship is the way in which they provide a physical space for people to meet, share concerns and organize themselves (Teig, 2009). One study found that low-income neighbourhoods were four times as likely as non-low income gardens to lead to other issues in the neighbourhood being addressed, reportedly due to organizing facilitated through the community gardens (Armstrong, 2000). In Armstrong (2000, p. 324) it was found based on researching 63 gardens in upstate New York that the gardens had led to work on other social issue in several other ways including:

- ➔ Through getting to know people in the area, gardeners became more active in local politics, it raised the level of awareness of what was going on in the surrounding area
- ➔ Communities had come together in order to organize and lobby for maintaining neighbourhood grocery stores
- ➔ Different programs interact through the gardens, so more awareness between organizations and political groups led to more effective organizing
- ➔ Better community cohesion; people recognize the people on the street
- ➔ People know who to call to initiate other efforts besides the gardens
- ➔ In some cases, in neighbourhoods with very high levels of crime, the gardens led to the formation of a 'neighbourhood watch'
- ➔ Neighbourhood associations were established
- ➔ Community babysitting strategies were arranged

Gray (2013, p. 124) draws an interesting comparison between community gardens and the Settlement House Movement that began in the early years of social work. Historically, the Settlement Houses were designed as a space to help the poor and to instill a better sense of work ethic within the destitute. Ultimately the people working in the Settlement Houses found that there were structural inequities that led to people's poverty that went beyond individual shortcomings. In the end the settlement houses began doing both service provision for their clients and community organizing. Gray (2013, p. 124) describes the function of settlement houses as "*a place for neighbourhood political activity and a laboratory for applying social research to social problems*" and goes on to say that "*Community gardens function in much the same way as Settlement Houses*". I believe this is an important analogy as it demonstrates the value of social workers having involvement in community gardens and the environmental

movement by association, as this absence by the social work community is a noted concern by several authors (Gray, 2013; Dominelli, 2012; Mckinnon, 2008).

### **Benefits for the Environment and Climate Change Mitigation**

Several studies have demonstrated that community gardens offer many benefits for the natural environment (Dow, 2006; Brodhead, 2009; Sherer, 2006). While it has been noted that in general research on community gardens is heavier on the social sciences side rather than the natural, there is still some research on how community gardens contribute to cleaning the natural environment and mitigating climate change (Tieg, 2009). I have divided the benefits of community gardens for the environment into two categories including primary and secondary benefits. The primary effects are the benefits that directly relate to the garden and the secondary benefits are the ones that are gained as by-products of the gardens.

The primary effects of the community gardens on the environment include, increasing biodiversity, decreasing water runoff and pressure on storm sewer systems, providing habitat for animals and plants, filtering the air, decreasing soil erosion and regulating the temperature (Brodhead, 2009). It has been noted that the benefit of controlling storm water runoff is also an economic benefit as community gardens can perform this function more effectively and less expensively than do concrete sewers and drainage ditches (Scherer, 2006). This function of the gardens could also help prevent flooding as the high levels of impervious surfaces within cities such as roads, sidewalks, parking lots and rooftops all prevent water from being absorbed into the ground. Sherer (2006) cites Beattie (2000) to help emphasize the benefits of green space as water runoff when he says that by incorporating green space *“into a city’s infrastructure, managers can build smaller, less expensive storm water management systems”*. Helping prevent disasters such as floods and thus the consequences that has for social work clients is a good example of how gardens can be Green Social Work.

The secondary benefits community gardens provide for the environment include less transportation cost for food, less power usage in homes and less pesticides being used. In a world that has championed globalization it is not uncommon for people to eat a plate of food that has travelled a great distance to make it to the destination. The transportation involved in this process, for instance, the trains, planes, trucks and other carrier vehicles produce carbon monoxide and contribute to global warming. When food is grown locally it does not need to travel the same distance or be refrigerated as long and thus mitigates climate change (Okvat, 2011). Research shows that community gardens use very little if any pesticides which have been shown to be damaging to water and soil quality (Teig, 2009; Dominelli, 2012). The last

secondary benefit includes the way in which when people are engaged in working in the garden they are not using power. This refers to the way that when people are in the garden they are not using the television, the lights, the radio or any other electronics. This absence of power use helps reduce the amount of carbon being put into the atmosphere and thus reduces global warming (Tieg, 2009; Okvat, 2011; Dominelli, 2012).

### **Neighbourhood Safety and Crime Prevention**

Several studies have found that there is a connection between community gardens and crime reduction (Ghose, 2014; Guitart, 2012; Harris, 2011; Okvat, 2011; Herod, 2012). According to Okvat (2011, p. 379) the ability to see or experience green space in an urban setting has been linked to fewer incidents of graffiti and other incivilities. A regression analysis predicting reported crime levels from vegetation in the inner city found that the greener a building's surroundings, the fewer crimes that are reported, including both property crimes and violent crimes (Okvat, 2011, p. 379). Furthermore, Guitart (2012, p. 367) found that reduced crime and increased safety is among the most often cited benefits of community gardens.

Herod (2012) did a study surrounding the relationship between crime prevention and community gardens. The study found that the actual levels of crime reduction are difficult to quantify and would most likely require a long term study for more concrete results. The study did, however, find that community gardens provide many things that have been associated with crime reduction. Herod (2012, p. 28) identified six primary themes that contribute to crime prevention as the result of community gardens including, relationships and networks of support, overcoming neighbourhood divisions, racial tolerance, cultural understanding and community building, beautification and physical order and empowerment. While most of the aforementioned themes have been discussed in varying iterations throughout this paper beautification and physical order is a topic yet to be addressed. It has been found that vacant land can serve as an area for criminal behavior and can undermine social capital (Herod, 2012). It has also been found that many communities perceive vacant lots as a public health problem due to criminal activity, trash build-up and other safety hazards frequently found within the lots. By offering a space a physical order, an aesthetic appeal and a general reverence earned in the neighbourhood, beautification can act as a way to reduce crime and promote neighbourhood pride (Armstrong, 2000; Herod, 2012).

## **What are common concepts and theories surrounding community gardens?**

In the next sections of this paper I will be examining some theories and central concepts that arise in the discussion surrounding community gardens. While community gardens can be related to several broader concepts and theories I chose three that I felt were the most pertinent to this particular study including food deserts, neo-liberalism and counterculture and social and environment justice.

### **Food Deserts**

Food deserts are “*neighbourhoods in which healthy food is expensive and/ or difficult to find*” (Shannon, 2014, p. 248). Wang (2014, p. 127) offers the United States Department of Agriculture’s definition of food desert or “*low-access community*” as a neighbourhood in which “*at least 500 people and or at least 33% of the population reside more than one mile from a supermarket or large grocery store*”. While there is a large amount of literature affirming the existence of food deserts all over the world (Schafft, 2009; Wang, 2014; Corrigan, 2011) there is some contention about how exactly a food desert should be defined as food store accessibility studies are not readily comparable because of differences in countries, cities, time periods, definitions of inner-city and suburban locations and accessibility measures used (Smoyer-Tonic, 2006, p. 322). It has been noted that the term food desert and its emphasis on the fundamental retail food environment neglects other considerations such as how human factors of ability, assets, and attitude can work to constrain consumption of what might be considered a healthy diet, regardless of the retail food environment (Schafft, 2009, p. 156). To offer an idea of some of the challenges faced by people living in food deserts Corrine (2008, p. 52) has a list of five commonalities of people living in a food desert in East New York including, poor quality of food, higher cost of food, few store options, limited transportation and concerns about food marketing practices.

A U.K. government publication documenting limited food store accessibility in a subset of low-income areas introduced the term “food desert” into the language of public policy. The term was used to describe “*populated, typically low income areas with limited food service availability, including supermarkets*” (Smoyer-Tomic, 2006, p. 309). Food deserts have been linked to the effects of neo-liberalism changing the layout of cities between the 1970’s and the mid- 1990’s in which smaller, central-city supermarkets closed and more profitable larger stores in the suburbs took their place. The closing of inner city grocery stores was also problematic as it was common for closed supermarkets to have agreements with the city prohibiting future large scale food retail chains to open up new stores at the old sites

(Smoyer-Tomic, 2006, p. 309). Schafft concedes that the consolidation of supermarkets and neo-liberal policies has led to the creation of food deserts:

*“Research strands within the fields of health and nutrition have paralleled recent social-scientific research on food access and retail food outlet consolidation, a trend driven by globalized food production and distribution systems increasingly controlled by a smaller number of corporations... Outlet consolidation has limited the number of stores in many areas, resulting in larger but fewer, stores and increasing the distance many residents must travel to purchase food”* (2009, p. 156).

The term “food desert” has been scrutinized as being used in rhetoric rather than a concept to characterize food inequities within cities. It has been proposed that “food access” is a more meaningful and accurate term as it possesses developed and generally understood meaning (McEntee, 2009, p. 358). The concept of food deserts itself has also come under scrutiny as some have suggested it is a form of “neo-liberal paternalism” and “that locating the source of obesity within specific neighbourhoods both pathologizes the spaces and potentially excludes a more systemic critique of both the conventional food system and urban development patterns” (Shannon, 2014, p. 258). Shannon (2014, p. 258) proposes that discussions around food deserts tend to bind certain health problems to low-income neighbourhoods, for instance, obesity, and thus furthers stigmatization of those neighbourhoods.

Smoyer-Tomic (2006) suggests the concept food desert draws much needed attention to areas with poor food access and health problems resulting from lack of nutritional food and more access of low-cost, high-energy, low nutrition foods. Corrigan offers an explanation of the difficulties experienced by people living in food deserts:

*“Travelling to the grocery store on a city bus is not always a stress free experience, especially for single mothers, the elderly, and persons with disabilities. Unless a caring friend or family member is available for babysitting on shopping day, single mothers must either take their children to the supermarket, which usually leads to additional unhealthy food purchases, or pay for childcare. Seniors and persons with disabilities are burdened with carrying groceries while utilizing the bus. Since carrying large quantities of groceries proves difficult for these groups of people, they often choose not to purchase in bulk which typically produces the most cost saving at a grocery store”* (2011, p. 1237).

This excerpt demonstrates that food deserts affect people’s mental, physical and economic well-being and are more likely to be problematic for already marginalized people.

## Examples of Neo-Liberalism or Counter-Culture

While the nutritional benefits of gardens are generally accepted (Mayer-Smith, 2007; Liberman, 2007; Corrigan, 2011), the political meaning behind the contemporary alternative food movement has been interpreted in several ways but for the sake of focus I will limit the discussion to two primary yet opposing interpretations including gardens as sites of neo-liberal governmentality or as counter-culture. Some authors have proposed that community gardens serve as “*spaces of neoliberal governmentality*” which encourage people to accept government roll back and in general champion values such as volunteerism, individualism, personal responsibility, and consumer choice (Pudup, 2008, p. 1228). The opposing view holds that community gardens serve as an ideological alternative and opposition to colonization, industrial food systems, private property and urban real estate ‘development’ (Walter, 2013; Hayes-Conroy, 2010; McIlvaine-Newsad, 2013).

Community gardens have been criticized as places of “*neoliberal governmentality*” and it has been proposed that they foster the idea that only those who are willing and able to volunteer should earn citizenship rights (Ghose, 2014; Pudup, 2008). Ghose offers further analysis of the implicit though non-intentional political conclusions of community gardens by saying that:

*“Voluntary or grassroots organizing may serve to inadvertently support the hegemony of neoliberal governance by alleviating the state of responsibility for social service provision and reinforcing the legitimacy of conditional citizenship, under which rights extend solely to individuals who voluntarily claim them through formal political participation or community-based organizing”* (2014, p. 1103).

Ghose (2014) goes on to propose that volunteerism associated with community gardens will extract material and labour resources from already resource-poor citizens, who already have difficulty in meeting basic survival needs. There is a concern that having social needs met by volunteerism and large amounts of donations from the private sector will encourage a retrenchment of the state, while social projects and services become more dependent on less politicized non-government organizations (Pudup, 2008). Pudup (2008) suggests that in addition to the problems surrounding volunteerism community gardens also serve a neo-liberal agenda by fostering consumer-subjects, citizen-subjects and the individualization of social problems. It is argued that the majority of community gardens aim to adjust people’s eating habits and to develop an environmental consciousness but the problem arises in that the solutions to structural social problems are attempted to be resolved with the use of the market, for instance, shopping for organic food and environmentally friendly merchandise. It is

further argued that community gardens, especially those related to school programs, encourage children to conform to ‘correct’ body sizes that are generally determined by the market (Pudup, 2008). Lastly, some authors express concern that neoliberalism is proliferated by the rhetoric of self-improvement and personal responsibility that tends to be found in the alternative food movement because of the implicit and explicit ways in which people are encouraged to change themselves rather than challenging the broader inequitable systems in which they live (Pudup, 2008; Hayes-Conroy, 2010).

Hayes-Conroy (2010) admits that focusing on individual “self help” technologies like cooking and gardening skills could lead people to believe that community gardens exist as neutral political spaces. Contrary to the views of Pudup (2008), however, Hayes-Conroy (2010, p. 82) proposes that *“a turn away from the state does not necessarily or only mean a turn towards neoliberalism in either ideology or practice”*. Hayes-Conroy (2010) goes on to emphasize that while community gardens do offer some focus on individual behavior they also give people a space in which they can talk about and interact with food in relation to broader political and economic structures. These garden conversations and activities with focus on local food are often laced with both an implicit and sometimes explicit critique of corporate agri-business. While in some cases community gardens will avoid overt politicization for strategic reasons such as funding and volunteer concerns, it is generally accepted that there is something inherently political about local food that offers at least some disenfranchisement with corporate food systems (Hayes-Conroy, 2010).

While Pudup (2008) proposes that the self-reliance encouraged by community gardens follows a neo-liberal agenda, Hayes-Conroy (2010) suggests that people might turn away from the state for several reasons some of which fall in line with anti-capitalist ideals. Hayes-Conroy (2010) offers an anarchist perspective on the issue:

*“It is worth noting that anarchist politics (to which many alternative food activist subscribe) are predicated on the assumption that local community is the rightful government, and thus that programs of mutual aid are in essence government-sponsored socialism from the ground up. In this light, a focus on local community and ecology within (community gardens) could alternatively be experienced as an effort to further the ideals of collective work and social responsibility, as opposed to individual gain”* (2010, p. 84).

In addition to anarchist perspectives there are other examples of distrust in centralized government that has manifested itself into collective work and do-it-yourself initiatives (Hayes-Conroy, 2010). The Black Panther Party’s “Universal Breakfast Program”, for instance, was produced out of a distrust of the United States government’s ability to

adequately provide for the African American population and out of hope for an “*alternative governing body that would truly empower the black community in ways that would further their ability to (materially) self-determine*” (Hayes-Conroy, 2010, p. 84). Several other authors have suggested that community gardens can serve as anti-capitalist spaces and that they can serve as an opposing force to state and corporate power (Walter, 2013; Okvat, 2011; McIlvaine-Newsad, 2013; Ghose, 2014).

### **Social and Environmental Justice**

The term “environmental justice” is generally placed under the larger umbrella of “social justice” (McIlvaine-Newsad, 2013, p. 380). For the purposes of this paper social justice will be defined as the right to live free of institutionalized oppression and domination and the environmental justice component will refer to people having the right to clean food, soil, air, water, green space and the right to influence how humankind interact with each element (Mullaly, 2010; McIlvaine-Newsad, 2013). Several authors have noted that in the struggle for social and environmental justice the two are inextricably bound to one another and to pursue one with no concern for the other would do both a disservice (Dominelli, 2012; Moghisi, 2013). McIlvaine-Newsad (2013, p. 73) proposes that community gardens represent a “*double benefit*” in the context of environmental justice as they “*not only remove the unhealthy problem of dependence on an unsafe, insecure food source but also replace it with an environmentally, socially and individually healthy activity and food source*”. The social and environmental justice components of community gardens are discussed throughout the other sections of this paper.

### **Challenges in Community Gardens**

In this next section I will discuss what the literature demonstrated were the most common challenges for community gardens. These challenges included maintaining and finding garden locations, dealing with vandalism and theft and volunteer education and recruitment.

#### **Garden Locations**

The literature shows that maintaining and finding a location for a garden is a rather difficult thing. As it is important for community gardens to be accessible and to have good soil quality it further shrinks the pool of eligible locations. In essence the two main issues

regarding garden location include gardens being shut down for development purposes and gardens being excluded in the process of city planning.

The primary threat to the location of community gardens is that of land development (Ghose, 2014; Harris, 2011; Okvat, 2011; Armstrong, 2000). Ghose (2014) describes this problem by saying that *“conflicts over urban land use and rights to space are common, as urban redevelopment projects prioritize economic development and housing over community gardens”* (p. 1094) and Gray goes on to describe how neo-liberal policies are at odds with community gardens:

*“Community gardeners have brought safety, food, beauty, fresh air, and a ‘sense of community back to their streets and people. Given their orientation to civic-social- rather than commercial- economic- purposes, these public spaces have faced myriad threats from corporate globalizers, real estate agencies, and social pressures against unregulated open public space. Much of the garden struggle is a fight to preserve public space for those at the margins to find solace in post welfare neoliberal cities”* (2013, p. 122)

Regardless of the plethora of obstacles in the way of community gardens the phenomenon continues to grow and studies have shown that when community gardens are present they bring up the value of properties located in the area (Ioane, 2008; Okvat, 2011). In some situations community gardens have become victims of their own success in the sense that as a result of the property value increasing in a neighbourhood developers move in and buy up property thus destroying the community gardens (Armstrong, 2000, p. 326).

While it would seem intuitive that selling off community gardens in favour of housing developments is a favorable trade as people need homes to live in, this sort of reasoning produces a false dilemma. As community gardens are an affordable way to help out communities socially in regards to social capital and education and are also economically beneficial in the context of bringing up property value and reducing the need for expensive storm water management, it would seem that civil societies and governments should find ways to incorporate gardens into city planning. Thus, the question should not be of homes versus gardens but rather how can both be implemented? Harris (2011, p. 24) proposes that *“(city) planners should become involved in creating, protecting and promoting community gardens because of the multiple benefits they offer”*. The opinion that city planners need to take into consideration community gardens the same way they would other essential municipal services such as electricity and health care is shared by multiple authors (Wang, 2014; Armstrong, 2000; Okvat, 2011; Gray, 2013).

## **Vandalism and Theft**

Vandalism has been cited as a concern in several studies surrounding community gardens (Teig, 2009; Armstrong, 2000; Dow, 2006). Dow (2006) found that the vandalism was primarily taking place in the form of stealing produce and equipment and abusing the property. In some cases vandalism was reported to have increased each year the gardens were around and that it left some gardeners wondering if they would even like to continue with the project (Dow, 2006). In other cases it has been found that vandalism has decreased the longer a garden was present in a neighbourhood (Teig, 2009, p. 1119). Teig (2009) found that many of the gardeners believed the reason the vandalism to their gardens was decreasing was having more gardening programs at schools. The gardeners felt that the garden programs in schools and other outreach work helped make caring about the gardens a social norm and that it helped the community understand the value of the gardens (Teig, 2009). It should be noted that in the context of my research theft of produce is not a possibility as the North Central Community Gardens have an open policy in regard to people taking food and invites both gardeners and non gardeners to take whatever produce they wish at any given time.

## **Volunteers**

Gathering enough volunteers to work in gardens has been identified as a challenge in some of the literature (Sheriff, 2009; Ghose, 2014). It has also been noted that a lack of skill among volunteers, unreliability and lack of physical ability can be concerns even if there is enough volunteers involved with the project (Ghose, 2014, p. 1105). While in some cases the strengths and weaknesses of volunteers can complement one another, for instance, elderly people that can no longer physically do the work paired with young but unskilled workers, it can still produce challenges if there are not enough volunteers with the right attributes for the projects.

## **Methodology**

### **Case Studies**

This research project is a case study of the NCCG using interviews, ethnography and archival analysis. Yin (2014, p. 16) offers a two part definition of a case study. The first part of his definition focuses on the scope of a case study and describes the method as “*an empirical inquiry that investigates a contemporary phenomenon and context may not be clearly evident*”. This definition emphasizes the importance of looking at a phenomenon in

context rather than a laboratory or other form of simulated experience. By conducting interviews with informants about their real life experiences my research has the added advantage of avoiding many confounding variables that might arise when doing research in simulated situations. Berg (2012, p. 325) defines as case study as “*a method involving systematically gathering enough information about a particular person, social setting, event, or group to permit the researcher to effectively understand how the subject operates or functions*”. I believe that this will be possible in the research to the extent necessary for answering the research questions and understanding the relationship between NCCG and GSW. Berg (2012, p. 325) goes on to say that a study requires two main components in order to be considered a case study. The first is that a case study requires multiple methods and/ or sources of data through which someone can create a full and deep examination of the case. While case studies always require multiple methods of gathering data it is open ended and has no rules in regards to how many different methods or what types need to be used. This criterion is met in my research by using three methods of gathering data including ethnography, interviews and archival analysis. The second requirement according to Berg (2012) is that a case needs to be a part of broader category of events, settings, groups, organizations, etc. of which the present study is just one case. While the NCCG is certainly unique in its own right, it is one case in the growing movement of urban gardens all around North America and the world over.

### **Challenges of a Case Study**

While case studies have many benefits and a long tradition of being used effectively, there are still several challenges that should be considered when using the case study method. Yin (2014, p. 19) suggests that the main challenges faced in case study research are ensuring it is rigorous, generalizable and manageable. In terms of rigorousness the case study approach has been criticized for not following as many systematic procedures as other forms of research. This has led to some researchers influencing the direction of the findings and conclusions (Yin, 2014, p. 20). Yin (2014, p. 20) suggests that this problem can be overcome through the researcher being consciously aware of avoiding such practices and through finding text that offer specific procedures for completing case study research. I believe that by evaluating the information gathered against the framework of GSW I have tried to ensure the degree of rigorousness required for reasonable objectivity.

The next common challenge of case study research is that some researchers question its capacity to be generalized. Yin (2014, p. 20) brings up an interesting response to this

critique by asking “*how can you generalize from a single experiment?*” This question refers to the way in which generalizations in science are rarely based on single experiments and that they are usually based on many experiments that have replicated the same phenomenon under different conditions. Thus, it is unrealistic to suggest that it is necessary to generalize based off of one research project. A case study, along with most any type of research should be perceived as some evidence that can join the body of literature that offers evidence for a theory or position that can be generalized more broadly. Yin (2014, p. 21) goes on to say that the goal of a case study is to “*expand and generalize theories (analytic generalizations) and not to extrapolate probabilities (statistical generalizations).*” In this research project I produced information that could help create a concrete way to evaluate community initiatives through the framework of GSW rather than making generalizations about the type of people involved or how much food they should produce etc.

Another concern is that the case study will involve an unmanageable amount of effort. This refers to the concern of some that a case study might result in a massive unreadable document. Yin (2014, p. 21) suggests that this concern stems from the way case studies have been done in the past but feels that in recent times case studies have begun shifting away from more traditional and potentially lengthy narratives. This shift is also attributed to the diversification of case study methods from the more traditional methods such as ethnographic or participant-observer data collection to other less time consuming methods like interviews. To avoid becoming over encumbered with a massive amount of data I set a fixed amount of time for me to gather field notes and primarily used my interview transcripts and archival information to produce my findings section.

### **Advantages of a Case Study**

While case studies offer many advantages, the two that appear to be the most pertinent to this research would be its ability to open up ways for discovery and its capacity to use two different methods leaving room to triangulate the answer to the research questions.

In regards to opening up ways for discovery, case studies have a history of leading to new insights and hypothesis that might not have otherwise been possible (Berg, 2012, p. 339). By exploring one topic from several different angles the case study offers an opportunity to discover questions and insights that the researcher may not have previously considered. As this paper is exploring the new theory of Green Social Work, the case study approach is a good way to examine the subject matter.

Triangulation is the other main advantage that the case study has to offer. Triangulation in this context refers to using several different data gathering methods and analyzing the results of each to gain the best approximation of the truth. The case studies ability to triangulate an answer to a research question was a great tool while exploring a relatively new field of social work.

### **Sampling Method**

When collecting my sample for this study I used two strategies including both snowball sampling and convenience sampling. I initially used a convenience sample which I gathered by posting an invitation to participate in the research on the NCCG Facebook page. This was somewhat successful in that I made contact with a few volunteers and employees of the NCCG but I still required more participants. Using the initial pool of participants I then used the snowball sampling method by simply asking my participants to recommend people that have been involved with the NCCG. My final pool consisted of 12 participants who were either currently employed with or volunteering for the NCCG. The community garden model made it difficult to track down people that use the gardens unless they were on the Facebook group or somehow personally connected to the staff and core group of organizers. This made it so the main group of people I spoke to about the gardens were almost all long-time organizers or paid staff which may have given some bias to the data.

### **Archival Analysis**

In addition to my interviews I employed an archival analysis of both the NCCG Facebook page and the North Central community newsletter, "*The Community Connection*". While some caution that serious errors are possible when using archival data, based on bias of the recorders it is believed that by triangulating data with several different research methods these issues can be minimized (Berg, 2012).

### **Ethnography**

Berg (2012, p. 197) says the main component to ethnography "*is that the practice places researchers in the midst of whatever it is they study*". I did this by volunteering in the gardens and taking part in the planting days. While I wouldn't suggest I gained a comprehensive view of how the NCCG works and its significance to the community, I believe that by having informal conversations with other volunteers, making observations and field

notes, I was able to offer a fuller analysis in my findings than had I not participated in the project.

## **Data Analysis**

After gathering my data I employed a conventional content analysis to develop my findings section. According to Berg (2012, p. 352) conventional content analysis “*involves coding categories that have been derived directly and inductively from the raw data itself*”. I essentially transcribed my interviews, created a word document of all the articles in the community newsletter about the NCCG and finally made a word document of all the Facebook group postings. I went through the information identifying common themes in all three sections and then analyzing the data with the literature. I followed the six point plan for content analysis as Berg (2012, p. 352) outlines:

- 1) I collected my data and made it into text to be “read” (e.g., field notes, transcripts).
- 2) I developed codes that were analytically developed and identified in the data and affixed to sets of notes and transcript pages.
- 3) The codes were transformed into categorical labels or themes.
- 4) The materials were sorted by categories, identifying similar phrases, patterns, relationships, and commonalities or disparities.
- 5) Sorted materials were then examined to isolate meaningful patterns and processes.
- 6) The Identified patterns were then considered in light of previous research theories, and a small set of generalizations was established.

## **Findings**

### **What is the Role of the North Central Community Gardens?**

In the following sections of this paper I will examine the role of the NCCG in the community by evaluating it alongside the themes I found in the literature including education, psychological and cultural benefits, social capital, public green space and crime prevention. Similar to the literature review I will break down the role of education into sections discussing lifestyle changes, environmental consciousness and practical gardening skills respectively. I will also break down the discussion of public green space into respective smaller sections including using green space as a play space for children and as a place that fosters active citizenship and critical consciousness.

## Healthy Lifestyle Changes Fostered by the NCCG

As seen in the literature review community gardens offer a plethora of healthy lifestyle changes that are usually associated with it. Based on my interviews and personal observations the primary ways people's lifestyles were affected by the gardens included diet, exercise and more social interaction.

In terms of people's diets the gardens affected both the ability to access healthy food and the desire to eat healthy food. As discussed previously in this paper in the outline of the North Central community and in the food desert section, there is no major grocery store in North Central which makes access to healthy food very difficult. Here is an excerpt from an interview participant describing the difficulty of accessing healthy food without the gardens:

*"I think, being that, especially in our community as in many communities that are at times run down or people see them as bad communities we don't have an actual food store. Anywhere to get fresh vegetables, fresh fruit, any of that, the only store that we have in the vicinity is the Grab Bag and Kleins (gas stations). Which I mean is great but of course it's a bunch of junk food and things like that. So being able to feed our community and help our community learn how to garden and grow things as well as have produce, fresh produce for them to be able to take home and feed their kids and their families, I mean access is everything".*

Similar to what was found by Corrigan (2011) my research also demonstrated that people's economic restrictions inhibited their access to food and that the community garden helped alleviate this issue:

*"There is not a grocery store in North Central. And when you don't have any money to pay for gas or the bus, imagine hauling like all your groceries on the bus and everything so I think it (the NCCG) makes it easier to access fresh fruit and vegetables and everything that we really need. And it's free, you just have to put some work in".*

Beyond the cost of transportation and difficulty of going to grocery stores in the suburbs my informants also had concerns about the cost of healthy foods by comparison to non-healthy foods:

*"Well certainly the opportunity for people to have healthy food available to them that is... It's organic too... and so that is something that is really difficult, healthy food is expensive and organic healthy food is generally like double the price so it's really an amazing opportunity to be able to access the food in your neighbourhood and the way that the gardens are set up you can just come and help yourself".*

In addition to issues of access, some interviewees mentioned how many people never ate fresh fruits or vegetables growing up and in general prefer less healthy options:

*“Sometimes I don’t understand why the community doesn’t respect the food in the gardens... like they should respect it more I feel... I don’t know if it’s.... I know we’ve looked in this community at what people eat and why they don’t eat... and why people in the community are not interested in fruits and vegetables. But I think it’s just the awareness, not knowing how to cook it or you know, growing up that’s just not what... you know, people ate macaroni and cheese. You just didn’t have the veggies so... umm... I think there could be a lot more awareness building around that”.*

This quote indicates that there are some issues in regards to people’s desire to eat healthy food. While it was a common theme throughout the interviews that the gardens being open to the community is a positive thing it does make difficult to keep track of who is eating the food from the gardens. From what most of my informants reported, however, it was very common place for the children from the neighbourhood to participate and eat the fruits and vegetables from the gardens. If the parents are more comfortable with less healthy food the fact that children are eating from the gardens may be an indicator that similar to what Liberman (2007) found, which is that the gardens are helping break a cycle of poor eating habits. One of the interview participants told a story about some children eating spinach and went on to comment about how unusual it was to see kids enjoying spinach so much:

*“Like I had a bunch of kids who have this spinach plant that we found and it was just a volunteer that had planted it and I was like “O look at the spinach plant” and they were like “well can we eat it?”. Yea you can eat and so then there were six kids all eating raw spinach thinking it was the best thing ever. And totally killed the plant, took all the leaves off of it but umm yea... but they were eating spinach and how many kids actually eat spinach on their own accord nowadays?”*

While the literature indicated that physical exercise is one of the main benefits of gardening I found that this was not brought up too much in the interviews, I believe that this element may have been overshadowed by the community building elements of the gardening. That said, based on my own personal experiences working in the gardens there is certainly a large amount of physical labour that goes into it including pulling weeds, digging holes, pushing wheelbarrows, lifting and carrying tools and various other activities too numerous to count. While it will be discussed more in the psychological benefits section some of the interviewees commented on how while the work is hard, doing it at a relaxed pace with a group of friends makes the exercise enjoyable. It was noted by one of the interviewees that hard work is not only beneficial as a form of exercise but might also help improve work ethic:

*“One thing that I will just mention here, gardening is hard work, not that hard work is everything but it’s good value to learn how to labor to have a reward and I think gardening is great for that, maybe in one of the successes that is probably one of them”.*

I noticed that many of the children were very active in the gardens as well, for instance, playing games that appeared to be very physical with a lot of running and movement. Several volunteers mentioned to me how nice it was to see children out playing and getting exercise rather than sitting at home and watching television.

### **Environmental Consciousness and the NCCG**

My research was consistent with the literature in regards to community gardens ability to foster environmental consciousness amongst its participants. While many of my informants mentioned that they were already interested in environmental issues, some also mentioned that simply being involved with others that share a passion for the environment through the gardens made them more likely to take action. One informant commented on how the gardens have been a motivating factor in doing more for the environment:

*“So when I am learning about how certain plants and flowers go together, I’m really interested in that and I really want to take what I have learned there and put it in (my) personal property and things like that. And it has kinda given me an awareness of how, like the bio-logical systems work together and I kinda want to work with nature instead of against it. So that has definitely been sparked by having the community gardens and especially the part about permaculture garden... Also, because of the personal connections with other people that are interested in gardening and also the environment, that is, that kinda motivates you to do more. You kind of develop a synergy, like you think “hey if I wanna do this project we can get these in, or help them with whatever project or something like that”. I think it has been a fuel personally to do more gardening and do more environmentally, I think because I have been involved with this I do more than had I not been involved. I would take what I have learned here and do it on my own personal things”.*

In other cases gardeners commented on how they felt the gardens not only helped re-connect people with the environment but also helped people see the natural responsibility they have to the environment:

*“I think it makes real that connection that is always there whether we acknowledge it or not. But I think it’s better acknowledged if we put some time into understanding it and you know, not just what it (the environment) does for us but our responsibility to it”.*

It was interesting to see that fostering environmental consciousness not only applied to individuals but also affected the way organizations interact with the environment. One volunteer commented on the way their organization expresses more environmental concern since having been involved with the gardens:

*“It has us thinking about it (the environment) more. Whereas before the organization had no... the concern was like people’s welfare and it still is but yea, I think it just made a greater awareness of the environment but people’s welfare is affected by the environment so take care of it”.*

While the literature offered a large amount of research primarily on the effects of gardens on children’s environmental consciousness (Lieberman, 2007), I did not find any research on how gardening could affect the way organizations make decisions towards the environment which made this quote especially interesting for me.

### **Practical Gardening Skills and Nutritional Knowledge from the NCCG**

In terms of fostering practical gardening skills and nutritional knowledge the NCCG uses both formal and informal methods that have both seen varying degrees of success which is what was found in the literature (Harris, 2011; Hale, 2011). In regards to the formal methods of education the NCCG has used multiple means including workshops, handing out recipe cards, garden tours and publishing information in the community newspapers. The informal means by which education at the NCCG has taken place includes learning by doing, communication on the Facebook group and personal exchanges between gardeners.

While studying the community gardens I only had the opportunity to attend one workshop hosted by the NCCG which was geared towards composting. The garden coordinator organized it and as a participant I found it very informative with a speaker that had a lot of very practical information for composting. There were also handouts and posters handed out at the event which was helpful to have as a frame of reference for people should they need to review the composting information. I could see how consistently having these types of workshops would make for stronger gardens and a stronger community as it gives the gardeners new ideas and skills for their work. This type of workshop is not uncommon for the NCCG and in the past the workshops have included canning, tea, salad, cooking and raised bed workshops. It is also important to understand that the education component, even the workshops, is still connected to the gardens not only because of who is hosting the events but also that the gardens are used to provide the ingredients for cooking classes and can offer a place to implement the skills learned. One example of this, for instance, would be the tea

workshop that used sage and mint from the Oasis garden to make sage peppermint lemonade. A recipe for the tea was also posted on Facebook to ensure people could use the gardens on their own time.

A formal measure taken by the NCCG to help educate the community about nutrition and gardening are the recipe cards that get disseminated throughout the neighbourhood. One of the garden coordinators commented on how the process works for handing out the recipes: *“I made up bags like washed produce, lettuce, kale, and anything that came from the garden. I put a recipe as well as a pamphlet with the drop-in times for the community gardens as well as where they came from. I put them in people’s mail boxes, I took them to Four Directions. I was handing them out on the street I was like “Hey! You need some lettuce? Here! Here is some information about the community gardens” ... Like I planted rainbow chard... I’m putting those in a bag and putting in a recipe, something easy, that they know what to do with it. Just getting people to the garden”*.

The NCCG also offer tours of the gardens so people and organizations can look around the garden and see how it all works.

The final component of the formal educational the NCCG provides the community is through the community newsletter called the *“Community Connection”*. While doing my research I went through many issues of the Community Connection and noticed that over the years there have been several articles written on behalf of volunteers and coordinators of the NCCG. There are many articles with gardening tips and information on healthy eating, for instance, there was one about how to eat healthy food on a budget and one on food security and how the neighbourhood is affected by the lack of a grocery store in the June 2009 issue. Another more recent issue included a section on permaculture gardening and was written by the most recent garden coordinator Tara Etter. The article included information on both the philosophy of permaculture and how those notions have been practically implemented at the Oasis garden and how people might use permaculture in their home gardens.

The informal means by which education at the NCCG has taken place includes learning by doing, communication on the Facebook group and personal exchanges between gardeners. While the majority of the people I interviewed already had some background in gardening I had none and I noticed that there were several other people at the garden’s planting days in the same situation as me. After speaking with the other non-experienced gardeners at the garden it was agreed that we all felt that by having the opportunity to work in the garden by digging holes, planting seeds and measuring seed distance we had developed a better understanding of how to garden.

I noticed that the NCCG Facebook has also served as a venue for people to exchange gardening information and tips about cooking. One example of this, for instance, was a short post about planting carrots, *“Something I have learned to do with carrots is to plant them in a patch, vrs rows. I did it one year by accident and it worked out really well – less thinning needed, and harvest was super simple too”* (NCCG, n.d). In addition to the Facebook informal information exchange there was also the personal exchanges that led to new gardening knowledge for participants. One participant explains the benefits of interacting with other gardeners and exchanging stories:

*“What I’m appreciating seeing is how it can bring people together. It’s almost always been a solitary activity for moi but working with a group of people, stories get exchanged, reminiscences come to the floor, experiences or knowledge, “try it this way, try it that way” and I’m not talking about me dispensing but me receiving as well. That’s just enhanced the love of gardening”.*

Another informant goes on to explain that the informal exchange operates as a great opportunity for everyone to share their own expertise:

*“Everyone has an area of expertise that they really know a lot about... that they are passionate about and I really like the opportunity to meet with those people and learn and have them teach me, I like to learn as much as I like to teach and I think that is very valuable. I think that is extremely important because everyone has valuable things to teach right”?*

### **Psychological Benefits of the NCCG**

I found my research to be consistent with the findings of Grabbe (2013) in that the garden offered people a place for stress relief, social inclusion and generating personal change. From my own experience I noticed several people at the planting days comment on how relaxing the atmosphere was and how much they enjoyed spending the day outside with the community.

In terms of stress relief several of the informants described the gardens as therapeutic or a good way to relax. One informant offered this explanation of the psychological benefits the gardens offers;

*“I can’t really explain it, I don’t know why it feels so nice but it feels peaceful, it feels healthy, it feels enjoyable, relaxing and that has been something personally that for me... from my perspective our natural calling is to tend the land and make it beautiful and take care of the plants and take care of the environment and so I feel like I get to do that for a little bit.”*

Another informant offered an explanation about the work in the garden being a form of therapy:

*“And the fun that comes out of it. It just depends on how you look upon it as fun or as therapy, a place to escape a place to... to see and see and appreciate the time that it takes to bring something along... and the consequences of bad weather or pests like vermin or moles... it is everything. I’m sorry (laughs) it’s everything, it’s a philosophy.”*

I found this quote to be especially interesting as the informant discusses bad weather and pests as part of the process that makes gardening therapeutic. It would be interesting to see in other research if people found that hardships in gardening helped build a stronger sense of resiliency in individuals. I also noticed that in one of the Community Connection articles one of the neighbours to the gardens described the gardens as *“a place of serenity”* (Kelly, June 2009).

It was found that the gardens offered people a place for social inclusion which in psycho-social rehabilitation models is a large contributing factor to mental health (McLoughlin, 2010). Based on my observations in the gardens it was very welcoming atmosphere, people were encouraged to participate and it was generally an atmosphere where people quickly made new friends and had activities and projects they could get together around. One participant described the diversity of the people that find their way to the gardens and what the interactions look like;

*“The school groups are around... it’s really neat to see the interaction between the younger kids and say the older kids from Scott or the older kids... young adults from Transitions to Trades... we’ve had different classes of student nurses through over the years. But to see the interaction of all those different age groups, again around something that’s you know, it’s a bit of hard work and can be demanding but is fun and maybe a little out of the ordinary for a lot of these folks it’s just really neat seeing the interaction like that”.*

Generating personal change was another theme I noticed in my research and in the literature. One participant noted that bringing gardening into their life helped in combating addiction. The informant offered this explanation on how gardening has helped in regards to addiction;

*“I’m growing plants at home now, I would never have done that if I wasn’t involved with the gardens. It was a very healthy outlet for me. Instead of falling back into addictions and stuff like that, well now I’m focusing on growing my garden and I’ve got a positive healthy thing that I can do, that can take up my time right? And I feel good about it”.*

Another participant commented on how at one of the organizations in the community that works with people with addictions would use the community gardens as a distraction for people that were looking to get some “sober time”:

*“So it does give me another way to do that and something like the lemonade stands, you get to talk to everybody and their dog in the community. Yea and it’s a hands on thing to say “o, you need some sober time I have a great activity that you can do, you can go garden. Pull some weeds and take home some beans and you know.” So in that way, like I said it’s just another way to connect with people.”*

### **Restoring Cultural Identity and Fostering Multiculturalism with the NCCG**

I found that the NCCG had a similar relationship to cultural identities as what was found in the literature. The NCCG helps forge cross cultural knowledge and helps offer a space in which traditional Indigenous ideas can be practiced. While the literature reported that community gardens can act as a space for new immigrants to practice English and ease home sickness (Cutter-Mackenzie, 2009) I unfortunately did not have the opportunity to speak to any new Canadians involved with the NCCG. While I was told by coordinators and volunteers that there are new Canadians involved with the gardens there is not a large amount of them and that it is something they hope will change in the future. I did however find that First Nations practices are largely incorporated into the NCCG which I discuss in the Green Social Work section of the findings.

### **Social Capital and the NCCG**

Similar to what the literature demonstrated I found that the NCCG fostered social capital. By virtue of building larger social networks with the gardens the gardeners had more access to friends and resources to assist them in other aspects of their lives beyond the context of the gardens and in their personal gardens. I found that social capital assisted the community gardeners primarily in the areas of awareness raising for social and environmental issues, food security and personal favours.

In terms of raising awareness for other issues I noticed that several of the gardeners I interviewed were involved with other social and environmental justice related projects. By using the social capital provided by the gardens people were able to better promote their events and also make use of various resource to improve the quality of the events. One of the events at the community gardens which involved the painting of mosaic tiles, for instance, is an example of using social capital to enhance the quality of an event. The Community

Connection newsletter offers this description of the ways in which different community groups were brought together by the gardens;

*“When the bench and mosaic tiles were installed on August 6, it was estimated that 200 people were in attendance. Street Culture Kids provided face painting, Transitions to Trades made balloon animals and the NCCA prepared a BBQ for the participants. It was a great event for the community and the new bench can be enjoyed by all”* (Morris, October 2009, p. 1).

One of my informants made a comment about how the community gardens have acted as a gateway into other community projects;

*“I didn’t know all the programming that north central did and now I’ve been able to help out with a lot of it or learn about it or connect with board members or connect with community members and really made north central my community. Whereas before it was just my home... I lived there and now this is my community”*.

In terms of using the community gardens network and social capital to advertise events many people simply communicate the information by word of mouth but the NCCG Facebook page has also been used extensively for advertising social and environmental justice events including , Help-Portrait, Blue Dot tour, Jane’s walk and Growing Regina to name a few.

Similar to Porter (2013) I found that the social capital from the gardens also contributed to food security for the local community in the context of organizations addressing poverty. The NCCG has a large breadth of access to community organizations and by virtue of having these relationships they can disseminate vegetables to community organizations like Chile for Children, Indian Metis Christian Fellowship and Four Directions. Social Capital also assists food security in the neighbourhood in the sense that people often found themselves with too many vegetables and would give that food to friends and friends of friends through the gardens to ensure that food was not going to waste.

In the literature I found that in some cases social capital developed through the gardens would lead to favours between gardeners that went beyond the context of the community gardens. With the NCCG I found that the main use of this element of social capital was for acquiring tools and information about personal gardening. The NCCG Facebook page revealed several examples of this, for instance;

*First Post: “how can u tell when tomatos can come off of ur plant?”*

*Reply: “tomatoes are ready to pick when they start turning from green to red and will ripen on your kitchen counter. They are good to eat when a nice red colour”*

*Reply 2: "You can also leave fruit on the plant until it's totally ripe, unless you're nearing the end of the season and don't want to lose tomatoes to a frost." (NCCG, n.d)*

These types of exchanges are very common on the Facebook page and illustrate the way in which social capital helps the community gardeners in the context of their personal gardening. One gardener also made use of the social capital from the gardens by using the gardening network to find her dog that had gone missing.

### **The NCCG as a Play Space for Children**

The gardens acting as a play space for children was consistent theme throughout the interviews and my observations in the field. The gardens serve as a safe space in which children can engage in both adult-led and self-directed play.

The literature demonstrated that community gardens serve as a place that fosters creative play amongst children (Gray, 2013). In terms of my findings from interviews and field observations several of the gardeners commented on how often the children would play in the garden, *"they're (the children) here every day and this is where they play"*. In terms of self-directed imaginary play I noticed children playing tag, doing cartwheels and collecting and naming earthworms which was behavior noticed in the findings of Laaksoharju (2012). While not ideal there were also two incidents identified by my informants outlining times in which children pulled up the tomatoes to have a *"tomato war"*, throwing tomatoes at each other, and another incident involving pulling up the labelling stakes and having sword fights. I will discuss these issues more in the vandalism section but regardless of it not being ideal for the gardens these incidents do demonstrate the children's ability to use the space for creative play.

The gardens offer a certain degree of safety for children's play that is not offered in other play locations. North Central is an area with a large amount of boarded up residential homes and businesses that lend themselves as a dangerous play spaces due to lack of supervision and general lack of maintenance. The gardens serve as places where children can go that is regularly cleaned and supervised by adults. In addition to the safety of supervision and the regular maintenance of the physical environment the gardens serve as a place where children have easy access to good role models. One of the gardeners offers comments on how often they interacted with the children in the gardens;

*"Most of the gardeners that I see are kids. Some of the gardens that we've had have been on empty lots right smack in the middle of a block. So you have kids living on this side or kids living on that side. You know they see you in the garden and they recognize you and they*

*come chit chat with you. You know you kinda catch up with them and you try to get them on the straight and narrow”.*

Another informant offered an explanation of what the gardens looked like prior to having the community gardens move in and clean it up;

*“The soil that we worked on, that we had to work on was a former yard that had a backyard where cars go to die... so there were junk heaps before the yards. So we absolutely had to plow it up and remove any debris, serious debris and mostly build raised beds. Some of the area we could go in the ground but towards the back it was raised beds, with clean new soil”.*

In addition to the children’s self-directed play they also engaged in adult directed play. The adult directed play included things like bringing out a beach ball and letting the children play a modified volleyball game. While in the context of volleyball or something similar the garden essentially serves as a venue for the game but there were other forms of play that were dependent on the gardens, for instance, seeing who can name a certain vegetable or having a competition to see who can make the highest pile of weeds. Here is an excerpt highlighting the regularity of which children came and played at the gardens with the coordinators or other adults, *“When I was there we partnered with several organizations. There were day cares that came out and we had like gardening days with them. A lot of it was playing games on the grass beside the gardens but we did pull some weeds and pick some vegetables”.*

### **Active Citizenship and Critical Consciousness from the NCCG**

While reviewing the literature I found that community gardens foster active citizenship in two primary ways. The first was that the gardeners would usually politically organize themselves when community gardens are threatened with removal and the second way was that by virtue of interacting in the gardens people will organize around other issues in the neighbourhood beyond the context of the garden. In my research of the NCCG I found that the gardens did lead to political organizing surrounding concerns about issues in the neighbourhood but for various reasons did not politically combat garden closures.

In the winter of 2011 one of the community garden locations was sold off by the city to make room for housing. As of the writing of this paper the location of the old community garden is still a vacant lot. In the literature it was common for people to combat community garden closures through awareness raising, direct action and protest (Gray, 2013). In the case of the NCCG, however, the two main factors contributing to the lack of protest was the easy access to another lot and the sentiment amongst most of the gardeners that the community is in need of more affordable housing more so than gardens, as one gardener put it *“you trade*

*tomato beds for people beds and I'm good with that*". It was also voiced by some interviewees that while the community needs more affordable housing it is up to the city to plan a way to provide both room for gardens and affordable housing. The issue of garden closures will be further discussed in the locations section.

As mentioned in the environmental consciousness section of this paper there are several gardeners that have become more involved with community organizing beyond the context of the gardens as a result of making connections to people and organizations through the NCCG. The gardens have led to the organizing of Jane's walks, informal conversations about environmental and social issues and plans for the establishment of an eco-museum in the neighbourhood.

### **Crime Prevention, Neighbourhood Safety and the NCCG**

Similar to Herod (2012) I found that determining the relationship between crime reduction and community gardens would require a much larger investigation than my research in order to quantify it. Regardless, however, my interviews did reveal that the gardens made people feel safer and that the gardens do several things that have been associated with the reduction of crime to various degrees including, building relationships and networks of support, overcoming neighbourhood divisions, cultural celebration, community building, beautification and physical order and empowerment (Herod, 2012, p. 28). The NCCG were awarded with a crime prevention award from the city of Regina which many of the gardeners cited as one of the biggest achievements of the gardens. According to my study the main contributing factors to neighbourhood safety the volunteers felt the gardens achieved were getting more eyes on the street and having people get to know each other.

Several of the volunteers mentioned feeling safer by simply having a public space in the neighbourhood with regular walking traffic. One of the interviewees offered this explanation:

*"the more sort of public space the more places you have for people to interact, the more eyes on the street you've got, the better the interactions. Like I think people tend to behave better when they think they have a whole street of people watching them. And it is the same thing with the garden, like if you have a whole bunch of folks tending to the garden I think there is folks looking out for each other and there is less chance for a mayhem or some guy coming to take advantage of things"*.

Another one of the gardeners mentioned that *“there was a drug house next to one of the gardens and since there were so many people at the gardens they like moved because there were just too many people around.”*

The other contributing factor that was frequently mentioned was the gardens helping bring people together and people getting know each other thus having more reverence for the community as a whole. One of the interviewees described this sentiment during an interview: *“I always think if you know somebody as a human being then you know... it makes it... like if you have a sense of responsibility, you have a sense of “o maybe I owe them some courtesy”. Maybe I owe them some friendliness. All these little things that make life better. That give you a sense of happiness about where you live or belonging. And again if you can bring people around something positive like a garden and develop that sort of common mission I think that is really great in and of itself.”*

While all the people I interviewed agreed that the gardens helped reduce crime, some of the interviews also expressed that the gardens are one component of a larger context. One of my interviewees made these comments on the matter:

*“I think it’s one important aspect or factor in keeping the community safe. I don’t think it’s the only answer but it’s a part of it. If you create an environment where, well really, literally we’re fostering growth, education, you’re creating safety right? There is a whole lot of other aspects to it but yes it is important in the big picture.”*

### **Challenges for the NCCG**

In the following sections of this paper I discuss the issues that my interviewees mentioned were the greatest challenges the gardens have or are currently facing. The challenges that will be discussed include vandalism, locations, volunteers and maintaining equitable food distribution.

#### **Vandalism in the NCCG**

While I was interviewing my informants the issue of vandalism was brought up several times. There seemed to be a bit of a divide amongst the informants about whether or not damage done to the gardens was done maliciously or simply done by children playing and not understanding the consequences of what they are doing.

One of the gardeners offered this description of what some of the vandalism has looked like:

*“And the other challenge is vandalism. The summer I worked there all of our sun flowers got chopped down with a machete and the corn in one garden was... with a knife of some kind... someone like went through and mowed all the tall stuff for no obvious reason... so that’s a big challenge.”*

In other cases damage was done to the gardens by people riding their bikes through, pulling up plants too early and kids having “tomato wars”. The community newsletter offered a description of the gardens for one year in which the gardens were much less successful than previous years for all the aforementioned reasons:

*“Near the end of the season, however, the gardens were not looking like an oasis of vegetables, as much as a plot of dirt that had nothing in it. This was due to many of the vegetables being pulled out too early or improperly harvested. This has been a very discouraging occurrence. Every time neighbours were hoping to take fresh food to their family for supper, they saw withering plant tops and spoilage. By the beginning of August there were no potato plants left as they had all been pulled up and left to die. Whether this was due to a lack of education on how potatoes grow or out and out vandalism we may never know. No matter what the reason, this is still very disheartening”* (Willcox, October 2010, p. 3).

### **Location Challenges for the NCCG**

The issue of finding and maintaining consistent garden locations was mentioned as a challenge almost unanimously throughout the interviews. In the past the NCCG would lease empty lots from the city on one year leases that the city had the right to dissolve at any time. While the gardeners universally expressed gratitude to the city for getting the lots they still voiced several concerns about the arrangement. The primary concerns voiced by the gardeners in one iteration or another was the issue of actually moving the garden and the logistics involved and also the lack of ability to develop infrastructure for long term gardening when concerns of being shut down are always present. The other issue brought up by the gardeners was the desire to have the city and more broadly society implement gardening into city planning.

As mentioned earlier in this paper, back in 2011 one of the gardens was shut down by the city, an excerpt from the community newsletter offers a sense of the disappointment of the gardeners and their ongoing appreciation for the help from the city:

*“There have been some changes over the winter that we have to overcome. One of the lots that we have been using on the 13-block Robinson Street has been sold by the city. Hopefully*

*a new house or some other great building will soon be constructed on the plot... We are appreciative of the support that the City of Regina continues to give us over the years”* (Hanna, April 2011, p. 3).

As mentioned previously in the paper some of the lots that the gardeners move into have not been used for a long time and require a large amount of work to turn the location into a respectable garden. One gardener, for instance, described one of the lots prior to the garden being put in as *“a place where cars go to die”*. Having to move the gardens and prepare the lot for a garden, both in terms of physical infrastructure and forging relationships with neighbours, takes away time and energy that could be used towards growing the gardens and the services it offers to the community.

In addition to the problems that occur with moving the gardens there are also challenges presented simply by the concern that the gardens might shut down. The concern that the garden will be unexpectedly closed has in the past prevented the gardeners from setting up certain types of infrastructure, for instance, water systems, perennial plants, soil enhancers, sheds and signage. One informant offered this explanation of the issue:

*“The city of Regina really graciously provides vacant lots for us to garden on super cheap but we get a one year lease and at any point during that lease they can break it to develop a house which is great, they’re building a house but it means that we can’t plant perennials. And they’re also unwilling to provide water unless we pay for getting that all set up ourselves unless it’s something more permanent it doesn’t make sense for us to like put the water, get a water tap put in”*.

Another informant commented on how not having a guaranteed space causes difficulties for planning fixed infrastructure like sheds and signage:

*“The infrastructure piece like if you’re going to have a shed or have a sign explaining what’s happening, or different sort of fixed infrastructure pieces... if you don’t know you’re going to have the lot one year to the next it can make some of those things kind of challenging”*.

### **Volunteer Challenges for the NCCG**

While the volunteers and organizers I spoke to regarded the NCCG pool of volunteers as *“a really great group of people”* there were some concerns including, lack of education amongst volunteers, transience in the neighbourhood and an overall difficulty with having people in the immediate area of the gardens volunteer. These obstacles were also common in the literature, for instance, Ghose (2014) and Sheriff (2009) mentioned these difficulties.

Several of the gardeners mentioned that a lack of education amongst gardeners has been a challenge. While there are organizers and experienced gardeners at the NCCG willing to help newcomers, often the problems occur when experienced people are not present. One common issue was pulling up plants before they were ready to be harvested, one of the gardeners made these comments about the issue:

*“Our challenges have been the lack of education to know that things take time to grow, to process, so it’s not out of ignorance or vandalism that they’ve been pulling up plants before they are ready. It’s just that they don’t have a concept of the time that it takes to produce a produce.”*

Another gardener spoke to the issue of people not knowing how to use the gardens and having difficulty identifying vegetables leading to produce being pulled and left in the garden:

*“Education has been an issue... People look at it and go “it’s pretty” but they don’t know what to do with it. They don’t know if they are welcome and if they know they are welcome they don’t know what to do with the vegetables. Like they pull up a plant thinking it’s a beet and then they don’t know what to do with it. Or they eat a zucchini and realize it is not a cucumber and aren’t impressed.”*

Similar to the above quotation there were gardeners that expressed concern that people don’t really understand how the NCCG is organized and are therefore hesitant to take part. While the NCCG hold multiple events a year, advertises in the community newsletter and on the website, North Central is a large place which makes it difficult to reach everyone. This causes a problem in that while many people might know about the gardens, the first thing that comes to mind when people see them are private plots people pay for rather than everyone working together, one of the gardeners offered this explanation of the situation:

*“The biggest challenges have been finding enough volunteers as well as a lot of people, or some people, as much as or as long as the community gardens have been around they don’t know about them. Like people don’t realize that they are there. So trying to get people to participate and you know see that these gardens are for them as well. The idea of community gardens as we know, the known version of community gardens is you pay like a fee and then you get a plot. That’s how most people think of them when they come and ask me, there like “so community gardens? So someone pays for a plot and they get to...” and I’m like “no, this garden is for me because I’m a resident, for you, for that person down the street, if you need some lettuce you come on down, if you like you’re having a bad day and you want to come sit in the garden for the day, you come down.” The garden is for everyone.”*

Another common concern about the volunteer pool was that the neighbourhood experiences such high rates of transiency that it makes it difficult to keep people up to date or to benefit from people's experience of past years in the gardens. The NCCG is not the only project in North Central affected by transience as the North Central Legacy Study suggests it affects the neighbourhood in several ways:

*“Many issues in North Central are connected to an instability that is generated by a population that is highly transient. This transience impacts both access to, and the success of, services that are designed to address root issues like substance abuse, the breakdown of the family structure, homelessness and housing and health (diabetes in particular)”* (Office of Urbanism, April 2009, p. 102).”

One of the informants commented on how the transients in the neighbourhood made it difficult to retain trained volunteers:

*“I think just focusing more time on recruiting volunteers and training them and educating them. Trying to retain volunteers is hard though because we have a lot of transience in this neighbourhood... a lot of people are moving in and out all the time. We do have like a few really dedicated people which is awesome, we just need more of that.”*

The third issue that was frequently brought up about challenges regarding volunteers was that there is some difficulty getting local people involved in the gardens. While the gardens are organized by people who live in the neighbourhood and the majority of the people I interviewed live in North Central, outside of children, local community members are not overly involved. One of the gardeners commented on this issue and how beyond of context of community organizations it can be difficult to get local people to take part;

*“I would like to see more buy in from the immediate community, like we can get groups to come, like this group and school groups to come but like the immediate neighbours like within the block radius I don't see them out.”*

Another one of the gardeners offered a similar concern about getting local people involved;

*“People walk by and say “o that's a really nice garden” or they'll maybe pick some things that are outside the fence. And maybe they'll come in occasionally and pick from within but they don't get involved and so I think that is a challenge to engage the people that are immediate neighbours.”*

### **Challenges with equitable food distribution in the NCCG**

In my literature review I did not find any concerns about how food was distributed but concerns over food theft was cited as a problem (Armstrong, 2000; Dow, 2006). While

reviewing the literature I found that the distinction between private lot community gardens and collective community gardens was not very clear as theft for all intents and purposes can't technically happen at a garden like the NCCG where the motto is "help yourself".

Regardless however of not experiencing theft in a technical sense there were gardeners that expressed concern with the way in which food could be freely taken from the gardens. One gardener made these comments in regards to the open form of food distribution being a disincentive for people to participate in the NCCG;

*"Another thing that I realized is, if you are planting a garden to get produce, like let's say I was wanting to plant a garden to get produce and I used the community garden to participate in, it's a little bit risky because I don't know that if I do all the work in the spring that there is going to be anything in the fall for me. So it adds this element of risk that is a little bit of a barrier to participate because you know, time is expensive. Like people are busy, I'm a pretty busy person and if I put in forty hours or whatever planting and then I spend parts of my summer maintaining it and weeding and I don't have a guaranty in the fall that a kid is not going to ransack the whole thing, I can see why a person wouldn't want to put a lot of planting time into it because of that risk."*

Another informant expressed similar concern but was unsure if the benefits of people having their own lots would be enough to compensate for the loss of community forged by the "help yourself" model:

*"I'm on the fence about whether or not I think it should be like the help yourself situation that it is now or if it would be more successful to have plots that people were... like more of a traditional approach because then... it is true that if a person has a plot then they feel a bit more committed to it and are gonna take care of it. But there are benefits to either one."*

### **How has the NCCG Addressed the Challenges?**

In the following sections I will discuss the ways in which the NCCG volunteers and organizers have addressed the aforementioned challenges. The strategies implemented to address the challenges include lemonade stands, signage, fencing, door to door food bags, permanent partnerships with schools and churches and awareness raising through events and media.

#### **Lemonade Stands**

Putting up free lemonade stands was a strategy to raise awareness about the gardens that I had not previously seen in the literature but my informants said was very successful. As

mentioned in the challenges section the NCCG has had difficulty educating the community about how the gardens work and how to use them properly. By setting up a free lemonade stand the volunteers and organizers were able to easily interact with community members and help explain a bit about the different vegetables being grown, one of my informants offered this explanation of the success:

*“She had this awesome idea where she did lemonade stands, she did free lemonade. We would sit at the gardens and we would give out free lemonade and while we do that... it gives us a chance to chit chat with people and tell them what the gardens are about and you know the whys. If their interested enough we take them in and teach them about it. Invite them to the drop in times. So that was a really awesome easy engagement strategy and way to get people talking about the gardens.”*

Another informant explained how the lemonade stands were used to help educate people about vegetables;

*“We also started having lemonade stands where we would just sit with free lemonade and talk to everyone that walked by because it’s a community that walks a lot. So then we were able to hand out vegetables and talk about vegetables and say “hey this is what you can do with vegetables”.”*

## **Signage**

The NCCG installed signs in order to help educate the community about the philosophy of the garden and what types of vegetables are planted and where and when they can be picked. In 2009 the community newsletter announced that the gardens would be installing signs;

*“Posters will be featured on the signs at each garden, confirming what is ready to be picked and when. The posters will also announce, upcoming community volunteer days... The Gardens are for everyone to enjoy, please don’t hesitate to walk through any garden and take a look around. Placards are placed at each garden with detailed information on each plant”* (Morris, 2009 August, p. 14).

While the use of signs seemed like a good strategy initially, ultimately they were too prone to children tearing them out to play with, as one informant mentioned, *“They tried to use signage... that didn’t really work because people... if you can pull it out of the ground and use it as a sword... someone is going to use it as a sword... and the signs got like jumped on and graffitied on so...”*

## **Fencing**

As one of the gardeners noted in the interviews *“some of the vandalism is just like bicycles ridding through the beds just not knowing that this is a garden.”* There is a general consensus amongst the gardeners that by putting in a small fence a lot of damage to the gardens was prevented.

## **Door to Door Food Bags**

Preparing food bags with recipe cards was one strategy used in order to raise awareness about the gardens and to get people involved. The food bags also contained drop-in times for the gardens in order to encourage people from the neighbourhood to join in with the project. While it is difficult to be sure of the success of the food bags as without speaking to the neighbours it is hard to know what happens to them, I have seen several posts on the NCCG Facebook page thanking the gardens for them, for instance, *“I was welcomed home with a pleasant surprise. A sample of mint, and sage from the community garden in my mail box. Complete with drop in list and times and a recipe for lemonade”* (NCCG, n.d).

## **Permanent partnerships with schools and churches**

As mentioned earlier consistent locations have been a challenge for the gardens. Prior to the time of writing this paper the gardens had had four garden spaces gained through deals with the city, two of which were shut down and two of which were given up voluntarily by the gardeners out of concerns that they would start a garden only to have it taken away. As a result of the precarious arrangements with the city lots the NCCG shifted to a location strategy of working with local schools, churches and private owners. Thus far the arrangements have been very successful for all parties involved, one of the gardeners explains;

*“There is an abandoned church that has been taken up by a Christian non-profit organization and we’ve built a partnership with them to use the south lawn of that entire church property. It’s just like a block from here. That’s a five year agreement, it will probably continue on... and that’s mutually beneficial right? They get free landscaping and food out of the garden and we get a space to use for the community.”*

The other garden is the one at Albert Scott School which is also a lease that will last to the foreseeable future. Similar to the church the school garden is mutually beneficial as well for all the same reasons in addition to offering a space that can be used for pedagogical

purposes. The other garden is in an empty lot that is privately owned by one of the residents and has a five year agreement in place.

### **Awareness raising through events and media**

As this topic has been discussed in various other sections throughout this paper it will only be examined briefly. A common theme amongst my interviewees when asked about how challenges were being addressed was the use of events and media to raise awareness about the gardens and to educate the community about how to use them. The gardens Facebook page has been used extensively for this purpose in addition to multiple events some of which include, Christmas in July, Planting Day and community barbeques. While the hope is that these days will lead to more community involvement and volunteers some of my interviewees expressed that even just getting people into the gardens is a success, *“community barbeques are awesome because you put a sign out that says free food and people are gonna come. And that might defeat the purpose but whatever, anyway to get them around. We send them home with vegetables.”* It is also feasible that the strategy of hosting events to draw in community members could address challenges with vandalism as Tieg (2009) suggests that community awareness is a factor in reducing vandalism to community gardens.

### **Green Social Work and the NCCG**

In the following sections I will examine the NCCG along the guidelines for Green Social Work as delineated by Domenelli (2012). In the introduction of this paper I offer brief descriptions of each of the guidelines involved in GSW.

### **Does the NCCG Respect all living things alongside their socio-cultural and physical environments?**

One of the main components to Green Social Work (GSW) is that it is imperative that GSW practitioners respect the people and context they are working within. As discussed in the literature review this entails working to improve the environment but also being aware of privilege and oppression and not undermining cultures and their traditional values. In the context of the NCCG the organizers and volunteers appear to be aware of the high First Nations population in the neighbourhood and as such attempt to incorporate a First Nations component into most aspects of the gardens. In terms of GSW and respecting the physical environment, it is a bit more straightforward than the complexities of understanding the socio-

cultural context. Respect for the physical environment refers to caring for the Earth in a sustainable way that will make it a better home for all living things.

The desire to incorporate First Nations teaching into the gardens was almost universal in all my interviews and interactions with both First Nations Peoples and Non-First Nations Peoples. One of the gardeners expressed that *“the biggest highest thing that we could reach would be more involvement and control by First Nations community... by the Indigenous People in our neighbourhood.”* One of the garden coordinators also expressed the importance of respecting the large First Nations community in North Central;  
*“Any kind of workshop I try to integrate some kind of First Nations background like, for instance, when we did the tea and salad workshop we integrated practices like sage and things like that. I think that is really important in our community because there is a large First Nations base. It’s just part of it... it’s just part of North Central Community Association.”*

In terms of what the incorporation of First Nations beliefs and practices looks like in practice at the NCCG, it includes the use of traditional plants, art, blessings from Elders and informal cultural exchanges. Traditional plants are incorporated into the NCCG as both a way of preserving medicines that are threatened by development projects in the area and a way of respecting Indigenous customs by using plants that traditional knowledge has demonstrated grow more successfully when planted together. One of my interviews revealed an anecdote about using the gardens to preserve Indigenous plants that might otherwise not have survived;  
*“Even the developments out by where I live. It’s like that piece of land had so many medicines on it last year and that is where I got the medicines I put in the garden. I transferred them because those trucks were sitting out there, those big machines and I knew they were going to demolish it, wreck it. So I thought “I’ve gotta do something” you know? I have a place to put them, where they can grow so I’m going to do that.”*

While discussing traditional plants with the gardeners several of the gardeners brought up growing the “three sisters” which for First Nations Peoples refers to planting corn, beans and squash in the same area. One of my interviewees explained to me that the three sisters is beneficial both in the sense of respecting tradition and that the *“squash provides the living mulch and the corn provides trelice for the beans and the beans provide nitrogen for everything”*.

The NCCG has also sought out First Nations Elders to offer blessings to the gardens and to offer insight on Indigenous plants at workshops. One project in which the guidance of a First Nations Elder was used was the construction of a garden shaped like a Medicine

Wheel, which is an important symbol for many First Nations Peoples. In an article from the community newsletter regarding Kari Herbert, a woman involved with the NCCG, a description of the Medicine Wheel garden and the involvement of a community Elder was given;

*“Established in 2007, the Community Gardens invite neighbours to plant and harvest healthy food. Kari designed a Medicine Wheel garden under the guidance and approval of Elder Norma-Jean Byrd and in partnership with Early Years Family Centre. The Medicine Wheel, located at Scott Collegiate, will hold traditional planting and reconnect people to the four Sacred Medicines. It is a renewal of the school grounds as a place of contemplation”* (Community Connection, October 2014, p. 4).

In addition to the multiple ways First Nations practices and beliefs are attempted to be incorporated into the gardens there is also an informal cultural exchange that takes place. Based on my interviews and observations it also appeared as though simply by virtue of different cultures interacting with each other while gardening or taking part in events people tended to learn about each other’s cultural practices. One of the gardeners commented on the informal cultural exchange that takes place in the gardens by saying that *“we hear about cultural teaching over sitting down and working side by side, informal, very informal.”*

It seems as though the NCCG demonstrates a respect for the physical environment through growing practices, beautification, and the inherent environmental benefits of gardening. In terms of growing practices the NCCG does not use any pesticides and in the case of the Oasis garden utilizes permaculture principles which are based around sustainability. In an issue of the community newsletter one article discusses the Oasis garden and how it relates to permaculture;

*“When walking by The Oasis garden, you might wonder why there are raised type beds and straw laid out with seemingly a lot of empty spaces. The reason for this is that the raised beds catch water and the straw, leaves, and woodchips keep water from evaporating too quickly. Raised beds also keep weeds from invading the plants. This is a perfect example of how a Permaculture garden works and promotes sustainability”* (Etter, August 2014, p. 1).

It appears as though the NCCG also respects the physical environment through beautification and physical order. As mentioned earlier in some cases the gardens were built in lots that were previously places where *“cars go to die”*. In these situations the NCCG had to put in new soil and in general turn the lot into a place suitable to grow food. The NCCG also incorporates art pieces in the gardens to help in beautification including a large mural on the side of their shed and mosaic stepping stones in the gardens. As mentioned in the

literature review, according to Okvat (2011, p. 381) there are also several functions that are more or less consistent in all community gardens that are beneficial to the environment including:

- ➔ Carbon sequestration: Plants absorb CO<sub>2</sub>, separate and release O<sub>2</sub>, and store carbon
- ➔ Reducing carbon emissions associated with food transportation from afar
- ➔ Reducing carbon emission associated with food packaging, refrigeration, and grocery store cooling/ heating/ lighting
- ➔ Reducing carbon emissions associated with sewer system cleaning of runoff water
- ➔ Vegetation lowers ambient temperatures, thus reducing cooling demand and thereby reduces CO<sub>2</sub> emissions from power plants
- ➔ While gardening, carbon emissions are reduced from transportation, cooling/ heating, lighting and appliances

### **Does the NCCG develop empowering and sustainable relationships?**

While the NCCG is not an explicitly democratic project, as it is managed by a board, my research suggests that the NCCG has a democratic basis to a degree and also helps foster sustainable relationships between people and their environment. The decisions for the NCCG are made by a board of directors and they are informed by the garden coordinator and the director of the North Central Community Association. While the board has the final say in decisions it seems as though there is a large amount of community engagement through public meetings, articles inviting feedback in the newsletter and the use of the Facebook group. One of my interviewees offered this explanation of the challenges associated with operating the gardens with staff;

*“I think another challenge is that it has shifted to become a community association project rather than... it used to be all volunteers and now it has moved to staff and in that transition I think we lost some of the community engagement that makes it work. I think that is one of the biggest ongoing challenges.... We still do it but we could do it a lot better.”*

During my time volunteering in the community gardens I found that I preferred simply following direction about how to do things as I have no background in gardening and I found many people were in a similar situation. The main decisions that have been made by the NCCG were essentially where to put the gardens and what style of community garden to have, for instance, private plots versus open garden. Outside of the big decisions, the community association essentially asks people what they would like to plant beforehand and then makes it happen. Based on my discussions in the gardens and with my informants there

was a general consensus that the outreach, while always having room for improvement, is working pretty well but the main issue is finding ways to get the community to want to have a voice in the gardens. One of my informants discussed how people might have a lack of engagement with the decision making due to other more urgent priorities;

*“And part of the thing with a neighbourhood like ours is people... there’s research fatigue right? Like people... the residents... the inner city has been researched to death. So and there is a bit of apathy around... like people don’t want to go to another meeting because really, there is not tangible result often... from that kinda stuff and so... and really, people’s priorities are about feeding their kids or like it’s about what is right in front of them. Their urgent needs. It’s not “o how do I better the community?” it’s not necessarily on the radar. It’s “how do I meet my needs”, It’s not necessarily healthy but that’s part of the challenge”.*

In regards to developing sustainable relationships between people and their environment it seems the gardens are run with environmental considerations in mind. This topic has been discussed in the environmental consciousness section of this paper.

### **Does the NCCG advocated for the importance of embedding the social in all economic activities including those aimed at eradicating poverty?**

Similar to what was mentioned in the literature review, I found that the NCCG, while not an explicitly political project, has several anti-corporate and anti-colonial implications by virtue of its existence. While speaking to the volunteers both in the field and in the context of the interviews there was often a distrust expressed for corporate food systems and agribusiness.

Regardless of the NCCG not having an official stance on specific environmental issues, for instance, the tar sands minning project in Alberta, Canada, all of my interviewees identified as environmentalist to at least some degree. I also noticed that on an individual level the majority of the people I spoke with expressed a desire to be independent of corporate food systems. One of my informants expressed their distrust of corporate food companies during an interview by saying;

*“It is in the hands of the people, right? We’re growing our own food we know what’s in it, we know what’s being... okay so I’m kinda taking a political stance but. We’re taking back that control over what we eat, what we put in our bodies. Because we’re growing it, we know what’s there right? Instead of leaving it in the hands of companies that may not have our best interest in mind. I’ll leave it at that before I go too far.”*

I also noticed in my research that while the NCCG is not officially political the work has some aspects that are inherently political and in some ways takes a side on environmental and

food security issues without needing to explicitly say so. By virtue of the gardens being open to everyone and having shared risks and rewards for the community it tends to represent a counter to the ubiquitous neo-liberal ideologies in the world at large. Furthermore, I noticed that at times the political nature of the gardens goes beyond the informal conversations between gardeners and into the public eye, for instance, this article from the community newsletter discussing how the NCCG champions the ideas of food security and environmentally sound growing practices;

*“Produce from community gardens is healthy and free of preservatives and pesticides. It’s also free and easily accessible- meaning residents don’t have to leave the neighbourhood or spend money on transportation. The same vegetables would be more expensive in the grocery store because they are shipped to Regina from all over the world. Finally community gardens are good for the environment because they are chemical free, utilize rainwater and, since they are used in the neighbourhood and not transported, they create no pollution”* (Keely, June 2009, p. 2).

Hayes-Conroy (2010) found that oftentimes community gardens would avoid overt politicization for strategic reasons like funding and concerns regarding volunteers. I found that this was similar situation with the NCCG as several of the volunteers expressed explicitly political views but cited concerns about funding and volunteers as reasons for not having the NCCG be more politically vocal;

*“Many non-profits would be pretty hesitant to take political stances because we get funding from the city of Regina and the government so it’s because of the funding that lots of these non-profits get... it makes it difficult to take these positions unfortunately because like you know, some of them are really relevant to the work we are doing. I mean some things need to happen, need to change politically for us to have lasting change in food security and if the organizations who are working on it on a regular basis, in-depth are not able to say anything it is definitely an obstacle to creating meaningful long-term change.”*

Another one of the gardeners offered a similar sentiment;

*“I mean personally I take a position against the tar sands and things like that but I wouldn’t go post things on like the Facebook garden page about it, I would keep that on my own. Yea, like we kinda have to keep a neutral... I mean because of the people who fund us... like we don’t make our own money we have to ask for money, so we kinda just have to be like “yea, yea” you know? Don’t make anyone mad but still get our job done. You know what I’m saying?”*

One of the interviewees also expressed concerns that they did not want to end up turning away or excluding people from volunteering based on political views;

*“I think if we want to stay in the community and be effective and build partnerships we need to stay neutral. Because, I don’t know, it’s just, it’s better to just try and engage people then to try and teach people to take sides. Right? If I can engage someone from the oil and gas company in participating in the community gardens well I’m going to do that. I’m not going to alienate them because I don’t like what they do, right?”*

While the political neutrality of the NCCG may not appear to be in line with the GSW philosophy it is important to consider the broader context of non-government organizations (NGO’s). In recent years NGO’s , especially in North America, have been scrutinized as lacking any real ability to galvanize change in the socio-economic status quo. This challenge stems from what was mentioned by several of my informants and what INCITE (2007, p. 3) refers to as the “non-profit industrial complex”. The non-profit industrial complex is the term used to characterize the situation in which NGO’s are funded by the state and corporate entities and thus cannot criticize these entities without jeopardizing funding they need in order to carry out the day to day functioning of their organizations. INCITE (2007, p. 3) proposes that NGOs serve six primary functions including:

1. Monitor and control social justice movements
2. Divert public monies into private hands through foundations
3. Manage and control dissent in order to make the world safe for capitalism
4. Redirect activist energies into career-based modes of organizing instead of mass-based organizing capable of actually transforming society
5. Allow corporations to mask their exploitative and colonial work practices through “philanthropic” work
6. Encourage social movements to model themselves after capitalist structures rather than challenge them

Given that the non-profit industrial complex is an issue that extends far beyond the NCCG it is difficult to criticize the NCCG for not being a more politically charged organization.

### **Does the NCCG question the relevance of an industrial model of development that relies on over-urbanization and over-consumption as the basis for social progress?**

While for the most part the NCCG does not take any explicitly political positions, as mentioned in the previous section, there are several political ideas inherent in the community garden model. In terms of questioning over-urbanization, the gardens inherently do this by trying to conflate urban areas with land for producing food. By putting gardens in the middle

of a city the NCCG is de-urbanizing space which has been shown to be beneficial for people and the environment in several ways that were discussed in the introduction of this paper.

The gardens question the relevance of over-consumption once again by virtue of their existence. Even in advertisements for the gardens and in the local newsletter the NCCG champions the fact that there is less transportation, storage and sweat equity used when people grow food near their home rather than other parts of the world which demonstrates a rejection of the notion that consumption and market economy are more valuable than environmental health and food security. The NCCG also demonstrates a disenfranchisement with the market by using a shared community model where everyone is allowed to “*help yourself*” to food from the garden. This community model of garden reduces the need to consume from stores and the market in general both in the context of food but also entertainment. As mentioned in the environmental benefits section, for instance, while people are gardening they are not using electricity for their televisions, lights, computers and other appliances. Furthermore, gardening as a pass time requires much less consumption from the market than many other activities, for example, video games or movies.

### **Does the NCCG promote social and environmental justice?**

The NCCG promotes both social and environmental justice to varying degrees. In the context of GSW Dominelli (2012) emphasizes that social and environmental justice should be treated as one and that to support one at the cost of the other will ultimately hurt both. For the sake of organization, however, I will discuss the ways in which the NCCG promotes social and environmental justice respectively.

In terms of promoting social justice the NCCG partners with anti-poverty organizations, produces spacial equity, de-colonizes spaces and minds and provides healthy food regardless of economic status. The NCCG has partnered with several anti-poverty and social justice organizations including but not limited to Four Directions, Regina Mental Health Clinic, SWAP (Street Workers Advocacy Project) and Indian Metis Christian Fellowship. By forging these partnerships the NCCG helps offer exposure and opportunities for organizations to make connections which in-turn makes these organizations more capable of promoting social justice. The NCCG promotes social justice by creating green public space and spacial equity in the inner city which gives people an equal opportunity to access the benefits of green space regardless of economic status. Similar to offering equal access to green space the NCCG strives to offer equal access to healthy food in a neighbourhood that based on my observations and interviews meets the criteria for a food desert. I also found that

many people involved with the project, both people that live in North Central and those that do not, felt that the NCCG helped reduce the stigma traditionally associated with the area.

One of the volunteers from the NCCG that does not live in North Central made these comments about how the project changed their perception about the neighbourhood;

*“I think it’s easy to have misconceptions about what North Central is like and working there for a few months I just saw the flip side to what you normally hear about which is this really vibrant community and in fact I saw more people walking around and out and about in North Central than I’ve seen in many communities in the city. And most people were like super friendly.”*

Another person involved with the NCCG who lives in North Central commented on how the NCCG affects perceptions about the neighbourhood;

*“Media communications generally trade in stereotypes and trades in images and symbols and all of that and like the negative ones are always way easier to... they just sort of float down stream but the positive ones they have to fight for... they have to struggle upstream and you know, it’s been sort of up and down and depends sort of on... you know some folks who have been organizing have been better at communications, some less so but it’s always a good story and an important story to get out about life in the neighbourhood.”*

In terms of the NCCG promoting environmental justice, they advocate sustainable growing practices and help educate people and communities about how to produce their own gardens. Community gardens inherently promote environmental justice as they de-urbanize space that would otherwise be occupied by buildings or concrete, neither of which acts as a watershed or absorbs carbon from the atmosphere. Understanding that the NCCG is already inherently good for the environment the organizers and volunteers do not use any non-organic forms of fertilizers or pesticides. In the community newsletter the NCCG cites both health reasons and the desire to promote environmental responsibility as reasons for using natural growing methods, for instance;

*“It is important that in today’s society we produce the least amount of waste and reuse what we can. Permaculture is easy to do and provides many benefits to the household and the environment. In trying to promote environmental practices, North Central Community Association (NCCA) wanted to apply some of the Permaculture practices to our community gardens” (Etter, 2014 August, p. 1).*

In addition to being environmentally committed in the context of North Central, the NCCG also created a booklet called *“Needs and Seeds”* which was made to help other communities start gardens and promote environmentally sound food practices.

## **Recommendations to Further Develop Green Social Work in the NCCG**

While volunteering for the NCCG and doing interviews and research with the people involved I noticed a few issues consistently surfaced and many people had ideas to help reconcile the difficulties being experienced. My recommendations for the NCCG include, having a year round organizer, advocating for more green infrastructure in the city, getting a social work practicum student and soliciting partnerships with the natural sciences department at the university.

### **Having a Year Round Organizer**

Having a year round organizer for the NCCG was one of the most ubiquitous goals I found amongst volunteers and staff. While I realize that budgetary restrictions are always a concern I believe that there is just cause to consider it as an option. Some issues a year round coordinator would contribute to solving would be more fund-raising, increased community input, more education, more programming and better institutional memory.

A common theme while discussing the challenges the gardens face was that there is a lack of awareness and education about the gardens in North Central. The lack of education was cited as a problem that contributed to vandalism, accidental breakage and volunteer involvement. With a year round coordinator it would be possible to spend the off seasons recruiting and training volunteers and in-turn reduce many of the challenges faced in the summer. Here is a quote from one of the gardeners describing the need for a year round coordinator;

*“I think they should have a community garden coordinator practically year round. In the summer, I know some people were saying you could use two people for the job. Just because there is so much more that could be done but by the time... because there are so many other things to do it's... you just don't have the time to do all the things that you would like to, especially the educational things.”*

Another one of the informants pointed out how much a year round coordinator would help with the institutional memory of the NCCG;

*“The amount that you can overcome challenges is limited by the limited time frame. Like if you had the same coordinator year after year... But they could like learn from like what worked and what didn't work last time and then start off with more success, than starting off each summer and trying to learn about the garden, learn about the role, find the volunteers all at the same time. It's a big learning curve in a short amount of time.”*

While in other sections of this paper I mentioned that the gardens seem to do a good job of being democratic, some of the volunteers mentioned that there is “*always room for improvement*” in this area. It seems like having a year round coordinator would be beneficial in the sense that they could forge lasting relationships with people in the community and spend more time taking in input about what people would like to see come from the gardens. One of my interviewees made these comments about how a year round coordinator would help the democratic process of the gardens;

*“I guess it’s just something, something that has to be done... that is something that a full time coordinator would need to take on. Because it’s like a long term thing right? Like that would involve getting input from people like before the summer started. You wanna know what people want to see planted like that, then ideally you’ve got to put a lot of time in and probably one of the best ways is knocking on doors and saying to people “hey we are going to put in a garden plot or maybe there already is one, what would you like to see planted this year?” Or “what would you like to happen at the gardens? What would make you interested in coming out and using them.” I think that would be amazing but I think within the current setup of just having someone do it for a couple months in the summer... it’s just either impossible or difficult.”*

Finally, several people commented on the desire to see more garden programs arranged, for instance, a backyard gardening program or something within the local schools that can combined the curriculum with the gardens in some capacity. As previously mentioned, however, starting projects like these require large amounts of time and effort that the summer term position does not offer.

### **Advocating for More Green Infrastructure**

While conducting my research I found that several people involved with the NCCG had a desire for more gardens and more green infrastructure in general, for instance, a composting system. One of the main challenges faced by the NCCG is maintaining their garden locations. As mentioned in the locations section most of the people I spoke to felt that affordable housing was more important than the gardens and if they had to choose would ultimately choose to have a house in the neighbourhood over a garden. Some of my informants brought up an issue similar to Harris (2011) in that community gardens should be looked at by city planners as any other essential service such as electricity or health care. This would entail incorporating space into communities for gardens the same as most places would for example with parks. One of my interviewees explained their sentiments as such:

*“If we have to choose between continuing to put up these lots for community gardening plot or having it developed as a house then we are going to go with the house. And it’s sort of devil’s bargain in that it... I think in a perfect world I’d see a community garden plot on every block you know? And then sort of structure that into people’s understanding of “o we have the park over there and that’s where we play ball and then we have the garden over here and that’s where I get my potatoes in the fall.” I think that would be really great way to do community planning.”*

Another one of the interviewees offered a similar sentiment about putting more emphasis on gardening from the city planning perspective;

*“I think that instead of growing grass I think a lot of the city should be growing vegetables and things like flowers together in all their planters. I mean you’re planting stuff anyway right? So why not provide food for your community, I don’t think you should have to pay for a plot of land to make that food, if that’s what you want and to have fresh food. I think that should be available to everybody no matter what. No matter you’re working class, no matter your status in society, I don’t care, I think fresh fruit and veggies should be available to everyone and I think this is the way to do it.”*

This excerpt also expresses the political nature of gardening and food production which is part of the reason this could demonstrate a value in the NCCG being more involved in advocating politically for more green infrastructure.

Another element of green infrastructure that people involved with the NCCG expressed a desire in developing was establishing a sustainable composting system in the city. This would reduce waste and be a great way to acquire fertilizer for the gardens. The idea of having a greenhouse was also suggested during the interviews and while the Canadian winter presents some challenges it is still not entirely out of the question. There were several other ideas regarding green infrastructure and overall I believe the NCCG is in a good position to politically advocate and lead the charge in order to see those ideas come to fruition.

### **Acquiring Practicum Students**

The desire for more assistance in the gardens, for both the community organizing component and the day to day work, was another common concern amongst people involved with the NCCG. In order to offer additional support to the gardens it would be beneficial for the NCCG to forge relationships at the local university and take on social work practicum students and natural science researchers in what would be mutually beneficial partnerships.

As mentioned before many of the challenges the NCCG faces are around educating the community and raising awareness. Social workers are specifically trained with community organizing, education and volunteer coordinating skills all of which would be useful to the NCCG. The social work student would also have the unique opportunity to observe how environmental issues can be addressed in conjunction with social issues.

As mentioned in the literature review there is not much research on community gardens from the perspective of the natural sciences (Teig, 2009). As concerns about the environment grow, having projects that alleviate climate change and carbon emissions are of consistently greater importance from a policy stand point. It stands to reason that should the NCCG be able to demonstrate the degree to which there garden projects help the environment it would aid greatly in gaining future funding and more broadly helping the community gardening movement at large.

## **Limitations**

While analyzing my data I notice that there were a few limitations in regards to validity, some resulting from a lack of time and resources and others simply due to a lack of research experience on my part. In the process of reading through my transcripts I noticed that I gathered a large amount of second hand information, for instance, having the adults reflect on what the children's volunteer experience was like rather than interviewing the kids themselves. Similarly, I would have liked to interview more people who live in direct proximity to the gardens in order to gain a better understanding of how the gardens affect their lives if at all. I believe that a good follow up study would involve going door to door through North Central and seeing how many people in the immediate neighbourhood actually know about and use the community gardens. This type of research would also be helpful in regards to gathering more firsthand information from people who use that gardens rather than interviewing people who are long time organizers and paid staff for the gardens.

## **Conclusion**

In conclusion the purpose of this research was to examine the extent to which the North Central Community Gardens (NCCG) in Regina, Canada can be defined as Green Social Work. The four main questions I explored included;

- ➔ How much does the NCCG relate to the main components of Green Social Work?
- ➔ What have been the main challenges for the NCCG?
- ➔ What is the primary role the NCCG plays in the community?

➔ What are the main goals of the NCCG moving forward?

My research demonstrated that the NCCG is compatible with many of the principles in GSW to varying degrees. In order to establish a context for the NCCG and community gardens in general I offered a review of the literature which explored the ways in which community gardens help contribute educational, psychological and cultural benefits, social capital, green public space and neighbourhood safety. In the methodology section I discussed why I chose to make this a case study and what benefits and challenges resulted from that choice. I also discussed the snowball and convenience sampling methods I used and what the drawbacks of these were. In the findings section I used the themes found in the literature as a criteria of evaluation for the NCCG. I found that the role of the NCCG was mostly consistent with the literature regarding what it contributes to the community. In regards to what the community gardens would like to accomplish moving forward I noticed three common themes including, having a year round organizer, advocating for more green infrastructure and acquiring practicum students.

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