

GROWING SPACE: THE POTENTIAL FOR URBAN AGRICULTURE IN THE CITY OF VANCOUVER



TERRA MURPHY KAETHLER
SCHOOL OF COMMUNITY AND REGIONAL PLANNING
UNIVERSITY OF BRITISH COLUMBIA
AUGUST 2006

Abstract



Urban agriculture is an essential strategy for planners to address many of the city’s emerging challenges with creative, multi-faceted solutions. Urban agriculture defined in simple terms is “the growing, processing and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities (Brown, 2003). This report provides an overview of the benefits of urban agriculture and explores best practices of urban agriculture initiatives in four North American cities which are presented as case studies. The report then shifts to focus on what is happening in Vancouver. It documents existing urban agriculture activities and supportive policies that are in place, identifies suitable new sites through the development of a public land inventory and explores other potential opportunities to expand urban agriculture initiatives in Vancouver. This report aims to inform planners, city officials and citizens about the potential of urban agriculture and recommends actions to expand and improve opportunities for urban agriculture in Vancouver.



Acknowledgements

Faculty Advisor

Tony Dorcey, Professor and Director
School of Community and Regional Planning
University of British Columbia

Second Reader

Terry Dixon, Greenways and Neighbourhood Transportation Program
Department of Engineering, City of Vancouver

Client

Devorah Kahn, Food Policy Coordinator
Wendy Mendes, Food Systems Planner
Social Planning Department, City of Vancouver

Land Inventory Working Group

Devorah Kahn, Food Policy Coordinator, Social Planning
Wendy Mendes, Food Systems Planner, Social Planning
Susan Kurbis, Food Policy Council Member, EYA Director
David Hosenchao, Consultant
Dan Sage, Federal Department of Public Works and Government Services
Terry Dixon, Department of Engineering Services
Wen Fei, Department of Application Development, GIS consultant
Andrea Tang, Central Area Planning
John Madden, Central Area Planning
Rob Bennett, Sustainability Program, City of Vancouver
Dale Mikkelsen, Sustainability Program, City of Vancouver
Edna Cho, Community Visions, City Plan
Kirsten Baillie, Community Visions, City Plan
Tom Phipps, Community Service

Special Thanks To:

Tony Dorcey, my faculty advisor, for the time and effort he invested in this project, his guidance and excellent feedback throughout the process, and his flexibility and patience to help me see this through to fruition.

My clients, Devorah Kahn and Wendy Mendes of the Social Planning Department, and to Terry Dixon, my second reader for the support, enthusiasm and guidance they provided during its development.

All members of the Working Group and other stakeholders who offered their invaluable advice and expertise throughout the project.

Susan Kurbis and David Hosenchao for their advice and interest in getting this project off the ground.

Terry Dixon and Dan Sage for access to their data sets, and Wen Fei for her GIS and mapping expertise.

Kirsten Baillie of Community Visioning and the Kensington Cedar Cottage community for their feedback on potential sites in their neighbourhood.

Paul Rosenbloom from the City of Portland, Diggable Cities Project Team for guidance throughout this project.

And last but not least, to my colleagues at SCARP for offering their advice and humour, and to my husband Norm Kaethler, for his careful editing, patience and ongoing support.

Thank You!

Table of Contents



3	Abstract
4	Acknowledgements
5	Table of Contents
7	Preface
8	Introduction
10	Section 1: Overview of Urban Agriculture
12	Benefits of Urban Agriculture
14	The Importance of Urban Agriculture to Planning
15	The Importance of Urban Agriculture to Vancouver
18	Section 2: Case Studies of Urban Agriculture in North America
20	Case Study 1: Seattle, Washington
23	Case Study 2: Portland, Oregon
26	Case Study 3: Toronto, Ontario
29	Case Study 4: Montreal, Quebec
32	Summary Of Case Studies
35	Section 3: Vancouver: Local And Regional Context
36	History of Urban Agriculture in Vancouver
37	Current Urban Agriculture in Vancouver
42	Local Policy Analysis
51	Provincial And Regional Policies and Initiatives
54	Challenges to Urban Agriculture



Table of Contents

58	Section 4: Public Lands Inventory and Other Opportunities
59	Urban Agricultural Land Inventory
64	Summary of Inventory Findings
66	Pilot Projects
71	Other Opportunities For Urban Agriculture
75	Section 5: Recommendations
76	Recommendations To Expand Urban Agriculture In The City Of Vancouver
79	References
	List of Table and Maps
37	Map: Current Urban Agriculture Activities - VanMap
41	Map: Environmental Youth Alliance Resource Guide
50	Map: Zoning Map, City of Vancouver
63	Table: Categories for Public Land Inventory
65	Map: Potential Urban Agriculture Sites In Vancouver
	Appendices:
83	Appendix A: Glossary
85	Appendix B: City of Vancouver Draft Community Gardens Operational Guidelines
87	Appendix C: City of Vancouver 2010 Garden Challenge
90	Appendix D: Public Land Inventory Results

Preface



The seed for this project was planted during a summer internship with the Social Planning Department of the City of Vancouver in 2005, when I helped to document existing community gardens in Vancouver and analyze community garden programs of other cities. That same summer, the *Diggable City Project*, an urban agriculture land inventory for the city of Portland, Oregon was released. *Diggable City* has started an exciting conversation around the potential of urban agriculture as a planning priority in Portland. This report aims to bring that conversation north to Vancouver.

The purpose of this report is to inform policy development that promotes urban agriculture and to serve as an educational tool for planners, city officials, and community groups about the growing potential for urban agriculture in Vancouver. It aims to elevate urban agriculture as an important component of urban planning in Vancouver by exploring the use of urban land for food production, and to recommend actions that expand and improve opportunities for urban agriculture in Vancouver.

The findings of this report coincide with increasing momentum for urban agriculture in Vancouver on many levels. Vancouver City Council has just announced its support of urban agriculture with a challenge to have 2010 new garden plots in time for the 2010 Olympics. As Vancouver will take centre stage during this international event, it provides an opportunity to showcase leadership on urban agriculture as a part of its sustainability mandate (Mendes, 2004). As Council has recognized, urban agriculture is an essential strategy for a sustainable city, which Vancouver strives to be.



Introduction

On December 11, 2003, Vancouver City Council approved a Food Action Plan to create a just and sustainable food system for the City of Vancouver. Since that time, a growing number of City developments and initiatives include community gardens, edible landscaping and /or farmers markets in their plans.

However, the absence of data about actual and potential urban agriculture uses has resulted in few guiding principles, targets, or goals to implement urban agriculture effectively, and no clear process to capitalize on emerging opportunities.

This report responds to needs expressed by City officials and staff, the Vancouver Food Policy Council, and community members for clearer processes and policies to expand and improve opportunities for the implementation of urban agriculture initiatives in Vancouver. This report reflects the priorities identified in Vancouver's Food Action Plan and contributes to a city-wide urban agriculture strategy now under development by the Social Planning Department.

There is a great untapped opportunity to further develop urban agriculture in Vancouver. The goal of the project therefore is to document existing activities and supportive policies of urban agriculture, as well as identify suitable new sites and other potential opportunities to expand urban agriculture initiatives. New sites were identified through a vacant public land inventory, which resulted in 77 potential urban agriculture sites located throughout the city. City policies and best practices across North America were briefly explored to inform strategies and recommendations for implementing urban agriculture successfully.

Methodology

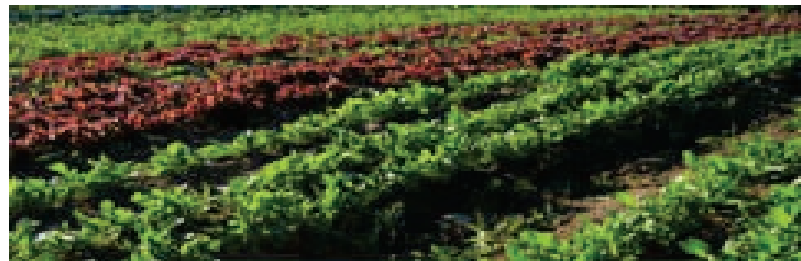
With the guidance of the Vancouver Social Planning Department, a working group was established to advise the land inventory component of this project. The working group was comprised of City staff, Food Policy Council representatives, and community members.

The inventory consists mostly of land under the management of the Department of Engineering, and the Department of Public Works, though additional sites were identified through advisory meetings with the working group and community consultations. Data was collected from the participating City departments, and then mapped through the City of Vancouver's GIS mapping program, VanMap. Potential sites were analyzed based on the evaluative criteria, visual analysis from VanMap and site visits to determine their suitability for urban agriculture. For a complete description of the inventory methodology, see Appendix C.

In addition to the inventory, I conducted an extensive literature review of best practices in urban agriculture and theories of urban agriculture. Relevant policy, models and analysis of Vancouver and four other North American municipalities were considered. The recommendations I put forward in this report are based on the inventory findings, the case studies, and relevant literature.



- **Section 1:** Addresses the questions: What is urban agriculture? Why is it important to city planning? Why is it important to Vancouver?
- **Section 2:** Compares four other cities and how they approach urban agriculture.
- **Section 3:** Highlights key examples of current urban agriculture initiatives in Vancouver and relevant policies and planning regulations, and identifies some of the challenges the City of Vancouver could address to remove barriers to expansion of urban agriculture.
- **Section 4:** Explores potential opportunities to expand urban agriculture in Vancouver:
 - The public lands inventory: What is a land inventory and why is it necessary? Describes the inventory process that was undertaken and summarizes the findings from that inventory. Five sites are identified as potential pilot projects.
 - Other opportunities: Explores other potential sites and next steps for expanding urban agriculture.
- **Section 5:** Recommends to the City of Vancouver how to address urban agriculture more effectively, based on the inventory results, best practices and policy analysis.



A lush garden scene with various plants, including blue flowers and green foliage, framed in a light green oval. The garden is filled with a variety of plants, including tall green stalks, blue flowers, and a large terracotta pot in the center. The background shows a fence and more greenery.

SECTION I:

OVERVIEW OF URBAN AGRICULTURE

SECTION I: Overview of Urban Agriculture



Definition

Urban agriculture is an umbrella term encompassing a wide range of activities involving the production, processing, marketing and distribution of food in urban and peri-urban areas. It is an important component of food policy and food system planning, which is increasingly recognized at the municipal level throughout North America.

Although there is considerable variation between urban agriculture activities, there are some general characteristics commonly associated with its production. Sites often occupy leftover spaces within developed areas. Sites range in size, but tend to be small and are rarely larger than a few acres. Therefore, land is intensively cultivated to maximize the productivity of small-scale agriculture. With intensive methods of production, much of a household's food needs can be met and urban commercial operations have been found to yield 13 times more per acre than rural counterparts (CFSC, 2003).

Products usually include a variety of crops and sometimes a few small animals, most often for personal use or local consumption. Urban agriculture sites are commonly owned or managed by a non-profit or government and considered a community asset providing many community benefits and educational opportunities (Rhoads, 2006).

Community gardens are the most common form of urban agriculture, but there are many other forms it can take. For the purposes of this project, urban agriculture includes (but is not limited to): greenbelts or corridors, peri-urban farms, community and backyard gardens, school gardens, inner-city greenhouses, processing facilities, compost facilities, orchards, edible landscapes, rooftop gardens, beehives, balcony/planter boxes, aquaculture, farmers markets and vineyards.¹

¹ see Appendix A for descriptions on these types of urban agriculture.

Definitions

“Urban agriculture is an activity located within the urban growth boundary which includes raising, processing, and distributing a variety of food and non-food products using resources, products and services found in and around the city, and in turn supplying resources, products and services for local consumption.”

– *The Diggable City Project*

“The growing, processing and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities.”

– *Community Food Security Coalition*

“Food and fuel grown within the daily rhythm of the city or peri-urban areas produced for the market and frequently processed and marketed by farmers.”

– *International Development Research Council*

BENEFITS OF

Food Security

Food security means having access to culturally acceptable, nutritionally adequate food through local, non-emergency sources at all times (CFSC, 2003). Urban agriculture is central to food security by providing access to fresh, nutritious food at low costs and increasing self-sufficiency. Access to fresh produce is particularly important in urban “food deserts”; or areas where affordable, nutritious food is unobtainable.

Food insecurity is a growing problem in Canada. A 2000-2001 survey reported that 15% of Canadians (17% in BC) experienced food insecurity, up from 10% in 1998 (Rideout, 2005). In 2004, 840,000 people a month in Canada were dependent on food banks, an increase of 123% since 1989. (Kalina, 2001). For low-income families, the cost of a healthy diet is prohibitive. A low-income family of four spends 30- 42% on food and 57% on rent. BC social assistance rates or minimum wage does not cover the costs of both (Cost of Eating, 2004).

Safe Neighbourhoods

Vacant lots often attract refuse or crime. An increase in safety, both perceived and demonstrated, has been observed in the vicinity of urban agriculture sites. More ‘eyes on the street’ and increased community pride results in less crime (City of Vancouver, 2005).

Education

Urban agriculture lends itself well to education. Urban agriculture activities let students see how different foods grow and create learning opportunities about new plants, biodiversity and life systems in a participatory way. Many schools are incorporating urban agriculture activities into their curriculum.

Culture

There are many food plants that have important uses in different cultures. Urban agriculture provides the opportunity to grow plants that might not be readily available in grocery stores and the chance for others to learn about new foods they may have never seen before. It also encourages cultural exchange among diverse communities.

Community

Urban agriculture sites serve as a social venue that builds a sense of community and belonging. Educational and cultural benefits lead to community building as people work together to learn, plant, maintain, harvest and share the food they have grown. Promotes community engagement and self-reliance (Strutynski, 2005).

Recreation

Gardening is one of the most popular leisure activities in Canada. 72% of Canadians and 42% of Vancouverites spend time growing vegetables, berries, fruit or herbs (City of Vancouver, 2005).

Environment

Urban agriculture increases green space and protects biodiversity and reduces the amount of food packaging and food waste that ends up in the landfill. Cleaner air, lower temperatures and water conservation are all benefits. Whether in a private garden or a public space, people become more involved and connected to the land and the food that they grow.

URBAN AGRICULTURE

Economic

In Vancouver the average family spends almost \$4500 per year on groceries (Strutynski, 2005). Growing and harvesting food from a backyard or a shared garden can reduce food costs. There are also opportunities to promote the local economy by direct marketing activities, job training programs, and employment opportunities. Costs can be saved for the city through reduced storm water management, reduced waste removal fees, and reductions in emission and transportation costs (City of Vancouver, 2005).

Health

Produce from conventional agriculture loses nutritional value due to long transport and heavy chemical inputs. As well, research indicates that limited access to green space has led to decreased physical activity and a corresponding increase in obesity. 26% of Canadians are obese (Evergreen, 2006). The total direct cost of obesity in Canada in 1997 was estimated at over \$1.8 billion (Cost of Eating, 2004). Urban agriculture initiatives provide healthy, safe, fresh produce to the community and encourage physical activity. Gardening three to four times a week has the same benefits as moderate walking or cycling, and has been found to reduce stress, anger, and even blood pressure.

Sustainability

The average food product now travels at least 2400 kilometres from farm to plate (CFSC, 2003). Growing more food in the city enhances access to local food and reduces the need for long distance transport. This has the potential to decrease fossil fuel emissions and reduce dependence on food that is shipped from far away. Local food production will become increasingly important as the cost of oil increases.

Urbanization

By 2050, the population of the planet is expected to reach 10,000 million people; 50% of them living in cities. Population growth in Vancouver currently averages 6,000 more people in the city every year. As densification increases, access to open space and places to grow food contribute to the livability and health of neighbourhoods (Bentley, 2005).

Food Supply

There are only three days' supply of fresh food in most supermarkets to feed a city. The food supply is at increasing risk from: climate change, natural disaster, loss of agricultural land, population growth, rising oil prices, bioengineering, trade agreements, etc. A key approach to increasing food security is to reduce a region's reliance on imported food and, instead, encourage local food production, processing and consumption (Barbolet, 2005). To prepare for emergencies, every community should be able to produce or supply at least a third of the food they require (CFSC, 2003).

“Rather than dealing with problems in isolation, food security and urban sustainability initiatives bridge issues of poverty, social justice, and human and ecological health.”

– Emily MacNair, *Seeds of Success*, 2002



The Importance of Urban Agriculture to Planning

Definitions

Food Policy

A set of goals, objectives, strategies and programs aimed to improve access of urban residents to stable supplies of good quality, culturally appropriate food through efficient, healthy, environmentally sound food supply and distribution systems.

Food System

A just and sustainable food system is defined as one in which food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a community.

The food system is an integral part of the physical, economic, and social well-being of communities. Strong local food production and distribution systems can contribute to community food security, self-reliance, and better health. Urban agriculture is an important component of food policy and food systems planning.

(City of Vancouver, 2005)

Urban agriculture has been practiced throughout the world for thousands of years and is an integrated urban form in many places. It is practiced in many areas that city planning is concerned with: on city streets, in public gardens, parks and schools, and in community gardens and offers many benefits to city life. Urban agriculture, although often overlooked in policy development and by city planners, is vital to enhance the health and well being of its citizens (Bentley, 2005). As more people move into urban areas and farmland is rapidly developed, creative land use planning to encourage urban agriculture can contribute to food security around the world.

Throughout history, urban agriculture has emerged in response to crisis and necessity. For example, during World War II, the number of gardens in Canada and the United States nearly doubled in response to fuel and economic shortages (Quayle, 1986). Today, with peak oil and climate change on the horizon, increased urbanization and population growth, and levels of hunger and food insecurity rising, urban agriculture is once again responding to the critical need for sustainable change in urban centres.

As outlined in this report, the potential for food production in cities is great and the benefits to cities are many. Dozens of municipalities are demonstrating that urban agriculture is a necessary and viable urban land use. Urban agriculture, and the food system more broadly, is an integral part of the physical, economic, social and spiritual well-being of places that planners care about (Balmer, 2005).

The Importance of Urban Agriculture to Vancouver



Like most large cities, Vancouver faces intense development pressure and maintaining urban green space becomes equally challenging. In Vancouver, there is very little vacant land available. Urban livability, the environment, and social justice are growing concerns facing the municipality. These challenges have led non-profits organizations, community groups, and increasingly governments to take a proactive role in protecting urban agriculture activities (MacNair, 2002a). With the reputation and commitment to serve as a model of sustainability, Vancouver is in a unique position to creatively increase the capacity of the local food system and increase urban agriculture.

The Vancouver Food Policy Council and the City of Vancouver recognize that urban food production offers a number of creative solutions to urban challenges and moves the City closer to its commitment to become a sustainable city. Even without a coordinated urban agriculture strategy, Vancouver provides funding and other support for a wide range of urban agriculture activities currently underway. With 42% of the population involved in gardening activity, there is ample support to create more urban agriculture activities throughout the city (City of Vancouver, 2005).

According to the Vancouver Food System Assessment report, urban agriculture has the potential to provide as much food in the City of Vancouver as is currently produced in all of the Fraser Valley, which generates about 56% of B.C.'s total farm gate receipts. The City of Burnaby, Canada's most extensive urban farming network with approximately 70 acres in production, produces 10% of all vegetables produced in the Fraser Valley. However, as this report reveals, policies, programs and regulatory tools are needed to support this shift to regional self-reliance or re-localization of the food system (Barbolet, 2005).

“As we move into the next century, we are witnessing an increasing dominance of urbanization of the Earth with less land and water per-capita. The return of agriculture to where we live presents us with a new paradigm.”

– City of Vancouver, 2005

“It is these efforts – to bring healthy food back into the city, to connect people with the land, to restore dignity of those in need – that offer us models for reinventing our urban communities.”

– Emily MacNair, Seeds of Success, 2002



SECTION 2:

**CASE STUDIES OF URBAN
AGRICULTURE IN NORTH AMERICA**

Section 2: Case Studies of Urban Agriculture in North America



Many large cities in North America are creatively using vacant or under-utilized public land to increase the capacity of the local food system and urban agriculture.

Toronto, Montreal, Seattle and Portland are leading the growing movement to improve the sustainability and livability of cities. In particular, they are at the forefront of developing policies and programs to ensure municipal support for urban agriculture initiatives. Each of these cities faces circumstances similar to Vancouver; growing population and high land values make access to vacant or under-utilized land difficult. This section takes a closer look at these four cities to explore and compare how their municipalities approach urban agriculture. Section Three explores how Vancouver measures up.



CASE STUDY 1: SEATTLE, WASHINGTON

At A Glance...

City: Seattle

Size

Metro Population: 3,763, 569
City Population: 574,000
City Area: 369 km²
City Density: 2665/ km²

Gardens:

60 gardens
1900 plots
4600 gardeners

Other UA Activities

Urban 'Barnyard' -small animal raising
7-10 tons donated to food bank annually
Public Housing CSA project nets \$30,000 in sales

Municipal Support

Dept. of Neighbourhoods P-Patch garden program running 30+ years
Gardens allowed in all zones
1995 Comprehensive Plan support

Seattle provides a unique example of effectively integrating urban agriculture into city planning, landscape design, and public awareness. Over the past 10 years, the City of Seattle has increasingly integrated goals for sustainability and community involvement into City planning processes (MacNair, 2002a).

P-Patch Community Garden Program

Seattle's community garden program, P-Patch, started in the 1970's and is housed in the Department of Neighborhoods with 3.5 full-time staff. Since the programs inception, 60 gardens have been set up across the city, offering over 1,900 garden plots on 12 acres of land. Three Community Supported Agriculture (CSA) sites have been initiated with support from both local farmers and Seattle residents (City of Seattle, 2006).

City staff assign plots, negotiate land access for new gardens, assist with fundraising, soil testing and volunteer training. There are special programs for immigrants, youth, and people with low-incomes or disabilities. However, even with strong City support, accessing land in this growing city remains a challenge (MacNair, 2002a). Recently, four gardens were established under utility lines to take advantage of this vacant, but usable land resource (Balmer, 2005). Gardens are located on land managed by the Department of Parks and Recreation, City Light Power Company, and the Department of Transportation, the Department of Neighbourhoods, and the Seattle Housing Authority, as well as on private lands.

Social and Economic Development

A partnership between the City P-Patch program, the non-profit P-Patch Trust, and the Seattle Housing Authority resulted in a successful economic program, **Cultivating Communities**. Using a CSA model, this project aims to increase food security and self-sufficiency among recent immigrants who live in public housing. The program has 19 community gardens available for public housing residents and three CSA ventures. In 2000, the CSA's netted \$30,000 in produce sales from 150 subscribers, fed 40 growers' families with organic vegetables, and paid each family \$500 for the year for their efforts. At the same time, beautiful and safe places are created across the city (Balmer, 2005).

1: SEATTLE



Food Security

Lettuce Link, a program of the Seattle Food Bank Association, creates access to fresh, nutritious and organic produce, seeds, and gardening information for low-income families in Seattle by linking backyard gardeners and P-Patch community gardens with food banks and meal providers. Of the 60 community gardens, over half donate produce to Lettuce Link, and 28 maintain entire plots designated as food bank gardens (City Farmer, 2006b). In 2005, over 30,000 pounds of fresh, organic produce was grown and given to over two dozen providers, feeding hundreds of people. Lettuce Link also runs its own ½ acre farm, hosts educational programs, and offers gardening information and seeds for people to start their own gardens (Lettuce Link, 2006).

Urban Animals

Seattle's urban agriculture doesn't stop with gardens; the city also supports small-scale animal raising. The City of Seattle allows up to three domestic fowl per lot, four beehives, and three small animals, including one pot-belly pig. **Seattle Tilth**, an organic gardening non-profit organization, has workshops that teach people how to raise animals in urban environments (Seattle Tilth, 2006).



Strong Partnerships

There is a strong partnership between the City of Seattle and citizens' groups to improve neighbourhood spaces. The Department of Neighbourhoods collaborates with the non-profit nature conservancy, **P-Patch Trust**, to provide community garden space in 44 neighbourhoods. P-Patch Trust operates by acquiring, owning, conserving, and preserving urban open spaces to be utilized as public community gardens for the primary purpose of educating Seattle residents.

Definition

Community Supported Agriculture (CSA)

is a partnership between local farmers and city dwellers, where community members invest in a share of a local farm's harvest, helping to cover its operating expenses for the season. In return, the farm provides a supply of fresh, locally-grown produce to participants, usually 10-50% less than what would be found in the store. With the risks and benefits carried by all shareholders, small-scale agricultural production can become economically viable for farmers (Balmer, 2005).

CSA's are widespread with thousands across North America. They originated in Europe in the 1980's, though have existed in Japan under the name of "teikei", which means "partnership" or literally "food carrying the farmer's face" (Bhatt, 2005).



1: SEATTLE

Resources

City of Seattle Department of Neighbourhoods, P-Patch Community Garden Program:

www.seattle.gov/neighborhoods/ppatch

City of Seattle Department of Parks and Recreation:

www.seattle.gov/parks

City of Seattle Comprehensive Plan:

www.seattle.gov/DPD/Planning/Seattle_s_Comprehensive_Plan/Overview

P-Patch Trust:

www.ppatchtrust.org

Seattle Tilth:

www.seattletilth.org

Lettuce Link:

www.fremontpublic.org/client/food.html#LettuceLink

The City's **Neighbourhood Matching Fund** finances many of the gardens through matching grants to community members. Through this web of linkages between City, NGO and community, urban agriculture initiatives have been implemented successfully (MacNair, 2002a).

Planning and Policy Initiatives

In 1992, Seattle City Council passed Resolution 28610, the City's first policy to formally support the P-Patch community garden program. It recommended that the P-Patch program be included in the City's Comprehensive Plan, and in the evaluation of city-owned surplus property, and that the City attempt to fund the management of the program (MacNair, 2002a).

- The Comprehensive Plan (1995) explicitly supports the P-Patch program, and aims for a minimum of one garden in every urban village (P-Patch Trust, 2006). This formal recognition of urban agriculture as a viable land use stabilized access to plots, solidified irregular support from the Parks Department and other agencies, and created a shared reference point for both city officials and citizens (Felsing 2002).
- Through Seattle's neighbourhood planning process, 22 neighbourhoods identified community gardens as an essential feature to include in their neighbourhood; city-wide, community gardens were third on the list of priorities for neighbourhood improvement. Implementation is managed by the Department of Neighbourhoods (Felsing 2001).
- Department of Parks and Recreation policy allows P-Patches anywhere they will not displace existing recreational activities. Gardens in parks include public amenities, such as demonstration sites and seating areas. When locating gardens within parks, community design processes are utilized to ensure that all park users have an opportunity for input. Currently 12 gardens are on parkland, and have proven to be a valid use of park space.
- Community Gardens are allowed in all zoning districts in Seattle. It is treated as a recreational use of open space. No permit is required (Felsing 2002).

CASE STUDY 2: PORTLAND, OREGON



Portlanders are avid gardeners and very involved with their communities. Therefore momentum is growing around urban agriculture in Portland. The School of Urban Studies and Planning at Portland State University produced an inventory called *The Diggable City Project*, which assessed the potential of urban agriculture as a planning priority for the City. The report has gathered significant attention both at the municipal and community level. A Phase Two report has been released which details an implementation strategy and further recommendations (Rhodes, 2006).

Community Garden Program

Portland's community garden program was created in 1975 with an ordinance to allow the Parks and Recreation Department to enter into agreements with land owners to administer community gardens on private lands. The ordinance states that it was passed "for the immediate preservation of the public health, peace and safety of the City of Portland" (MacNair, 2002b). This support has legitimized community gardens and ensured that they are included in neighbourhood plans.

Community gardens are included in the mandate of the Parks and Recreation Department. The Parks Department is responsible for support and management of 30 community gardens in Portland. It employs one staff member who trains volunteer garden managers, manages communications, provides educational courses and helps the community find new sites. Two thirds of gardens are located on parkland; the remainder are located on institutional, government or private land (Balmer, 2005). Three demonstration sites are organized through the garden program – a backyard wildlife habitat, a community garden, and a community orchard (MacNair, 2002b).

*"Community gardens are important neighborhood gathering places that contribute to the city's parks and open space system and support neighborhood livability."
- City of Portland's Urban Agricultural Resolution*

At A Glance...

City: Portland

Size

Metro Population: 2,127,000
City Population: 556,000
City Area: 376 km²
City Density 1599/km²

Gardens

30 Gardens
47 public school gardens
Up to 3-year wait list for garden plots

Other UA Activities

11 farmers markets
19 CSA's in region
Programs for job training for youth, new immigrants

Municipal Support

Dept. of Parks garden program running
30 + years
Definition of parks includes community gardens since 1975
Strong partnership with NGO community



2: PORTLAND

Resources

Portland Community Garden Program

www.parks.ci.portland.or.us/Gardens/Community/CommunityGardens.html

Zenger Urban Agriculture Park

www.zengerfarm.org

Growing Gardens

www.growing-gardens.org

Friends of Portland Community Gardens

www.friendspdxgardens.org

The Diggable City Project

www.diggablecity.org

For More Information

Portland Permaculture Institute

www.portlandpermaculture.com

Oregon Food Bank

www.oregonfoodbank.org

City Repair

www.cityrepair.org

Portland Area CSA Coalition

www.pacsac.org

Strategic Plans and Policy

Unlike Seattle, Portland has not included urban agriculture strategies in its overall planning objectives. However, by 1972 planting gardens in parks was a common practice and widely accepted. Formal recognition of gardens in the zoning code set a standard and maintains the viability of gardens within the City. The ‘permitted use’ status of community gardens in the zoning code allows gardens in a number of zoning districts (Felsing, 2002).

Non-Profit Community

The City of Portland has a strong relationship with the non-profit community and Portland’s gardens are strongly supported by community groups and volunteers. The Parks Department works in partnership with the non-profit **Portland Friends of Community Gardens**, which supports a Parks Garden Coordinator, volunteer garden managers, runs school programs and subsidizes fees for low-income gardeners.

Entrepreneurial Urban Agriculture

The City of Portland supports many urban agriculture initiatives that generate revenue, and successfully create jobs and train youth and adults for food-related careers. The City hosts 11 farmers markets, supports 19 CSA operations in the region, and offers multiple programs for job and business training. **Foodworks**, a program run on Housing Authority land, teaches youth how to grow salad greens, which they sell at a farmers market. **Zenger Farm**, an educational working farm located within the city limits, is developing an apprentice farmer training program to build farmers skills and business savvy.

Learning Opportunities

2: PORTLAND



47 public schools have school gardens, and there are programs underway to build more gardens and to incorporate food issues into the curriculum. A learning garden laboratory is being developed on a 13-acre site to be used for educational programming for public school students in partnership with Portland State University. Other educational opportunities are provided by non-profit organizations that offer garden summer camps, after school programs, and farm tours (Balmer, 2005).

Food Security and Community Development

Urban agriculture has benefits for the whole community. Approximately 3,000 people participate in community gardens, 10% of whom are immigrants, 1/3 of whom are youth, and many of whom are low-income. Community gardens accumulatively grow over 1/2 million dollars worth of produce each year. 2,000 pounds of that produce was donated in 2005 (Friends PDX, 2006).

Growing Gardens in a non-profit organization that helps low-income residents garden on



Portland's Guiding Principles

According to the Portland-Multnomah Food Policy Council, "the City of Portland will promote, support and strengthen a healthy regional food system, based on the following guiding principles:

- Every resident has the right to an adequate food supply of nutritious, affordable, and culturally appropriate foods.
- Food security contributes to the health and well-being of residents while reducing the need for medical care and social services.
- Food and agriculture are central to the economy of the City, and a strong commitment should be made to the protection, growth and development of these sectors."

(City of Portland, 2003)



CASE STUDY 3: TORONTO, ONTARIO

At A Glance...

City: Toronto

Size

Metro Population: 5,304,100

City Population: 2,481,494

City Area: 630 km²

City Density: 3939.4/ km²

Gardens

100+ gardens

3000 plots

4500 participants

6-10 new gardens per year

Other UA Activities

Business models

Rooftop gardens

Composting program

500 hectares of zoned agricultural land which produces \$585 million in sales annually.

Municipal Support

Official Plan references

Food Action Plan

Strong partnership with Toronto Food Policy Council.

their own land. These gardens not only have improved food security and nutrition, but have created stronger communities. A survey to participants found that 86% share food outside their household, and 33% have met neighbours through gardening (Balmer, 2005). Since 1996, Growing Gardens has built 400 home gardens in Portland (Growing Gardens, 2006).

Urban agriculture in Toronto happens in many forms and at many levels, including non-profit educational gardens, community gardens, an urban agricultural business model, advocacy the municipal level with the Toronto Food Policy Council and an active NGO called Food Share. The City of Toronto supports these activities through its Community Garden program, and by funding a small Food Policy Council staff.

Community Gardens

Community gardens are run through the Department of Parks and Recreation. From 1991 to 2001, the City's program expanded from 50 gardens to 122 (Balmer, 2005).

Municipal support includes assistance to identify and access new sites, site review, partnership between parks and community, and training and technical assistance. The community garden program supports one full-time program coordinator, two summer staff and several youth animators (Kanellakos, 2004). Most gardens are regional allotment gardens, owned and administered by the City. Some gardens are owned by the Toronto Housing Authority, and



at

3: TORONTO



others are located on institutional land or private property. The most successful gardens are in low-income neighbourhoods (Bhatt, 2005).

Funding is provided for new community gardens, and ranges between \$5,000-8,000. Water is provided at no cost to the gardens. A greenhouse is provided for volunteers to produce plants and as an educational centre. The total annual cost of Toronto's Community Garden program is approximately \$150,000 (Kanellakos, 2004).

Planning and Policy

In 1991, in the absence of federal and provincial leadership on food security, the City created the Toronto Food Policy Council (TFPC). The TFPC partners with business and community groups to develop policies and programs promoting a food system that fosters equitable food access, nutrition, community development and environmental health. The TFPC operates as a sub-committee of the Toronto Board of Health, and supports a small staff and modest budget. Over the past 10 years the TFPC has been instrumental in putting urban agriculture on the municipal agenda in Toronto.

The Food and Hunger Action Committee was created in 1999 to research food security in Toronto. This collaborative group of city staff, councilors, and citizens has published numerous reports, created the Food Charter and Food Security Action Plan, which recommend actions for expanding urban agriculture. Both documents have been endorsed by Council (TFPC, 2006).

Toronto's Official Plan contains many references to food security and community gardening, as well as to the Food Charter and Food Security Action Plan. In 1999, the Community Garden Action Plan aimed to create a community garden on parkland in every ward of the city by 2001. However, by 2003 nearly half of the city's 44 wards still did not have a community garden (City of Toronto, 2003).

Definitions

Food Charters

Many cities in Canada have developed food charters to state specifically the municipalities' commitment to food security. These charters are then adopted by city council bodies. Among many other items related to food security and local food systems, Toronto's Food Charter calls for the protection of local agricultural lands, the support of urban agriculture, and the encouragement of community gardens.

Food Policy Councils

Integrating food-related issues into municipal policy and planning is a growing trend throughout North American cities. A Food Policy Council is a voluntary citizen body with formal links to government officials. The goal of a Food Policy Council is to examine the local food system and provide a forum for advocacy and policy development for how it can be improved. Food Policy Councils are often seen as the first step towards a citywide approach to addressing food security and sustainable food systems.

(TFPC, 2006)



3: TORONTO

Resources

Toronto Food Policy Council (TFPC)
www.toronto.ca/health/tfpc_index.htm

Toronto Community Garden Program
www.city.toronto.on.ca/parks/programs/community.htm

Food Share
www.foodshare.net

The Stop Centre
www.thestop.org

Action Plan: The Growing Season
www.toronto.ca/food_hunger/pdf/growing_season.pdf

Toronto's Food Charter
www.toronto.ca/food_hunger/pdf/food_charter.pdf

TFPC: 10 year review
www.toronto.ca/health/tfpc_ten_years.pdf

Strong Non-Profit Community

Toronto has a very strong non-profit community and the City maintains strong ties to it to support urban agriculture initiatives. The **Toronto Community Garden Network** helps residents access land, organizes workshops, and assists with start-up of community gardens. The non-profit group **Food Share** helps facilitate these gardens by educating people about how to start and maintain them, as well as providing educational materials on gardening to the public. Community Health Centres and other non-profit agencies are also involved in urban agriculture activities. This web of resources ensures that urban agriculture is supported at the community level.



Other Urban Agriculture Initiatives

Annex Organics is a showcase for innovative urban agricultural methods. This group demonstrates and tests methods for beekeeping, gardens, greenhouses, and composting systems, all on the rooftop of an industrial building. Run by youth, they sell their produce to restaurants and other groups, providing an example of a profitable commercial venture (Balmer, 2005). **The Stop Community Food Centre** is a non-profit organization that assists low-income residents with access to healthy food. Along with a food bank which serves over 6,000 people a year, the Stop offers alternative programs, such as a volunteer community garden that supplies food to the food bank, and environmental education for children and youth (Austin, 2004).



Composting: The Food Policy Council has led several efforts resulting in citywide composting programs, a green roof on City Hall in 1997, and municipal support for businesses that use the products of composting (Balmer, 2005).

CASE STUDY 4: MONTREAL, QUEBEC



Montreal is internationally recognized for its community gardens. With a well established community gardening program and network throughout the city and supportive policy in place since 1985, it is both the extent of programs and the commitment of local government that sets Montreal apart from other cities (MacNair, 2002a).

Community Gardening

The Montreal Master Plan states that “[Community gardens] contribute to neighbourhood community life and cultural development, reinforce residents’ sense of belonging and encourage participation in sports, recreation and outdoor living” (City of Montreal, 2002). Community gardens in Montreal also contribute significantly to food security, as 50-60% of participants are low income residents.



The community garden program has been running for over 30 years. Post-amalgamation, the city has over 100+ gardens, totaling 8195 plots, with over 10,000 gardeners involved. Three departments: Sports, Recreation, and Social Development (SSLDS); Parks, Gardens, and Green Spaces; and Public Works and the Environment (STPE); are involved in providing access to land, materials, and services to gardeners, as well as

facilitating a youth gardening program. These departments also work with community partners and volunteers to ensure successful management of the program. In 2002, the total budget for the program was \$770,400 (Kanellakos, 2004). The start-up costs for establishing a community garden are approximately \$20,000 for a garden site of 90 plots (Bvatt, 2005).

All gardens follow specific schedules and regulations. For example, participants must grow food organically and grow at least five different vegetables to restrict commercial ventures in community gardens. Flowers must be less than 10%. Garden Committees, annually elected by gardeners, provide daily garden management, liase with the City, and facilitate social activities. The City sends out information on community gardens with utility bills to all residents and hosts an awards ceremony at the end of the season, adding to the recognition of urban agriculture as an important City priority (MacNair, 2002a).

At A Glance...

City: Montreal

Size

Metro: 3,635,700

City: 1,583,590

City Area: 366 km²

City Density: 4,363/ km²

Gardens

100+ gardens

8000+ plots

10,000+ gardeners

Other UA Activities

Collective gardens for food security

Strong CSA network supporting 77 peri-urban farms

Municipal Support

3 Departments involved in garden program

Master Plan is explicitly supportive

2/3 of gardens zoned as parks

Permanent Agriculture Zone covers 4% land



4: MONTREAL

*“Montreal
has the most ambitious
community garden program
in Canada”*

- Kanellakos, City of Ottawa, 2004

Collective Gardens

While community gardens grew rapidly in the 1970's and 1980's, collective and peri-urban forms of urban agriculture have increased quickly in the last ten years. The Victory Garden Network, a project of the non-profit organization **Action Communiterre**, manages gardens to provide food security for those in need and to build community capacity. These gardens are not divided into plots, but are collective, and are gardened through work parties and volunteers. Much of the harvested produce is distributed to food banks and collective kitchens.

Community Supported Agriculture

Community Supported Agriculture (CSA) is a peri-urban partnership between farmers and city dwellers, where participants buy a share in a local farms' production, supporting their operational costs, and securing a share of organic, locally-grown produce to participants.

Equiterre is a non-profit organization with a mission to support and facilitate access to organic agriculture, ecological transport, equitable commerce and energy efficiency throughout Quebec. Equiterre manages a province-wide network of participating farms (77 farms participated in 2005, up from 50 farms in 2002), with several thousand consumer shares (Bvatt, 2005).



4: MONTREAL



Urban Agriculture Zoning

The City of Montreal zones new community gardens as parkland in order to protect gardens. Two-thirds of gardens are now zoned as parkland (MacNair, 2002b). The City also has designated a Permanent Agricultural Zone (PAZ) which covers about 4% of the city's total land. This land is currently used for an experimental farm run by McGill University, an agricultural park, an eco-museum and an arboretum. The Montreal Master Plan includes an action titled: "Preserve and enhance rural character and agricultural activities in certain areas of the West Island" which includes steps to enhance urban agriculture by developing the agricultural park further, ensuring that new development does not conflict with agriculture, developing agricultural tourism of the area, and maintaining the PAZ boundaries (Balmer, 2005).

Resources

Community Gardening Program

www.cooptel.qc.ca/~danielreid/montrealgardenprogram.htm

Making the Edible Landscape: A Study of Urban Agriculture in Montreal:

www.mcgill.ca/mchg/projects/el/

Montreal Master Plan:

www.ville.montreal.qc.ca/portal/page?_pageid=2762,3099643&_dad=portal&_schema=PORTAL

Equiterre:

www.equiterre.org/en/

Action Communiterre:

www.actioncommuniterre.qc.ca/english/home.html



Summary of Case Studies

These case studies reveal that municipalities can, and do, play a leading role in developing policies and programs to support urban agriculture initiatives. Based on this comparison, there are four common steps that cities take to support and successfully implement urban agriculture initiatives².

- A **formal community garden program** is put in place, with City staff designated and funding available. A variety of departments are involved in administration of urban agriculture initiatives, and a variety of land tenure options are available. Most often, community gardens are managed by a Department of Parks and Recreation.
- A strong **partnership between the City and a non-profit agency** is developed to provide or assist with management, expertise, and as a liaison with the community.
- City **documents, policies, and zoning laws** are created that explicitly support the development of urban agriculture initiatives. Naming urban agriculture in formal documents gives recognition that urban agriculture is a valued amenity, and enhances the viability of urban agriculture.
- Urban agriculture activities are linked to **social programs** with benefits including: youth apprenticeships and employment, community development, food security, educational programs, donations to emergency sources, and habitat restoration.

² These results are also based on an urban agriculture inventory of eleven cities across the US and Canada conducted by City of Vancouver (2005)

SECTION 3: VANCOUVER LOCAL AND REGIONAL CONTEXT



Section 3: Vancouver: Local and Regional Context



When compared to Seattle, Portland, Toronto and Montreal, it becomes clear that Vancouver has some catching up to do in terms of municipal support for urban agriculture. Vancouver has the least amount of community gardens (Montreal 100+, Toronto 100+, Seattle 60, Portland 30, Vancouver 18), less farmers markets than Seattle or Portland, less commercial ventures than Toronto and Montreal, and has not taken many of the aforementioned steps in Section Two to ensure a supportive approach to urban agriculture implementation.

However, the size and density of Vancouver must be taken into account. Toronto and Montreal are much larger cities (Toronto: 2+ million people, 630 km²; Montreal 1.5 million people, 366+ km²). Vancouver is slightly larger in population than Seattle and Portland, but half the size in area (Seattle: 574,000+ people, 369 km²; Portland 556,000 population, 376 km²). Due to the density of Vancouver and the limited size in area, the amount of land that is available for urban agriculture is considerably less.

And Vancouver is growing. An average of 6,000 more people move to the city every year. By 2021, Vancouver's population is expected to reach 635,000. As Vancouver's land base has been fully developed for many years, this new growth is accommodated through redevelopment and infill. As densification increases, it is crucial to consider the livability and health of neighbourhoods. Access to open space and places to grow food allow citizens to remain connected to the land and to the knowledge of where food comes from.

Although the City of Vancouver does not have an official urban agriculture strategy, it does provide a wide range of programs and services related to urban agriculture which are currently underway. These include community gardens, farmers markets, rooftop gardens, composting facilities, hobby beekeeping and commercial enterprises. Policies and planning documents that relate to urban agriculture are beginning to be developed as well. Over the next few pages, some examples are highlighted of current urban agriculture initiatives and related policies in Vancouver.

When planning for urban agriculture, it is also important to consider peri-urban and regional perspectives. Although this report focuses on agriculture within the City limits, some examples of regional policy and activities help to put Vancouver in context with its surrounding environment.

At A Glance...

City: Vancouver

Size

Metro: 2,132,824

City: 583,296

City Area: 114.67 km²

City Density: 4758/km

Gardens

18 gardens

950 plots

16-24 school gardens

1500+ gardeners

Other UA Activities

Beekeeping Policy (2005)

Job training/ Educational programs

Farmers Markets

Municipal Support

No formal program or staff

Parks Board and School Board garden policies in place

Food Action Plan (2003) calls for urban agriculture expansion

City-wide sustainability mandate



History of Urban Agriculture in Vancouver

In Canada, the first community gardens appeared along railway lines initiated by Canadian Pacific Railway in the effort to encourage pioneers in 1890. At the turn of the century, school gardens flourished and vacant lot gardens were instituted to meet food needs by utilizing unproductive land. During WWI, over 1000 gardens were established to help the war efforts. Most of these gardens survived through the Great Depression and continued with the Victory Gardens of WWII. Since 1965, community gardens in urban centres have been established throughout the country as a response to—and as an indicator of—the increasing awareness of ecological and food security issues (Quayle, 1986).

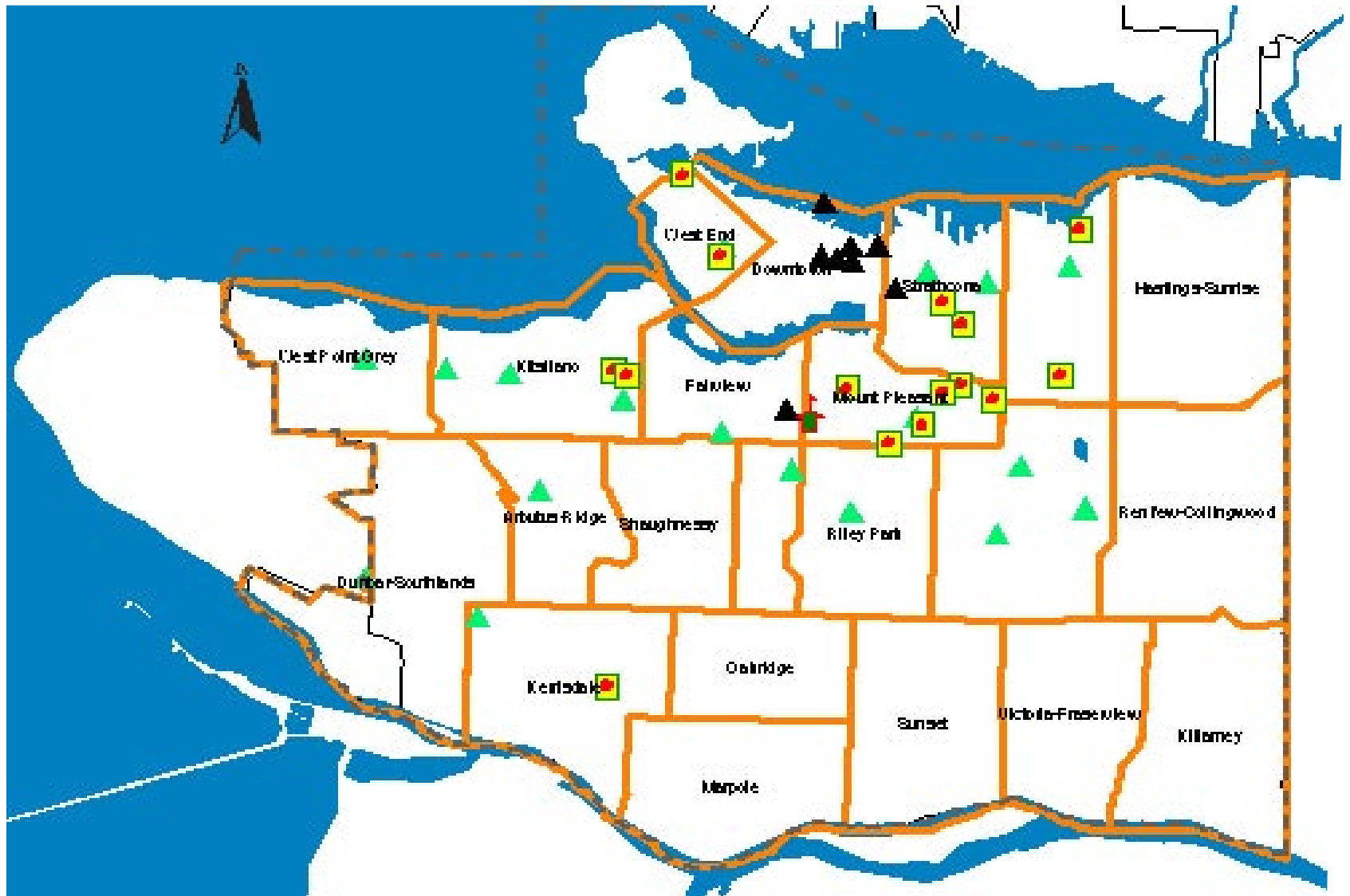
In Vancouver, urban agriculture has a long and established history, beginning with allotment gardens that were created during WWII and are still cultivated today. Gardening remains a popular recreational activity for residents today, with 44% of the population involved in gardening, whether in their backyard, balcony or in a community garden (City Farmer, 2006a).

After more than 10 years of active community work, on July 8, 2003, City Council approved a motion supporting the development of a just and sustainable food system for the City of Vancouver. Since then, much progress has been made, such as the endorsement of a Food Action Plan, the election of the Vancouver Food Policy Council (VFPC) and the hiring of two full-time city staff. The VFPC and the City of Vancouver recognize that the connection between cities and food growth offers a number of creative solutions to move towards a more sustainable urban environment (City of Vancouver, 2005).



Mole Hill Housing Cooperative back-lane garden

Current Urban Agriculture in Vancouver



Community Gardens
Rooftop Gardens
School Gardens



Source: VANMAP; City of Vancouver



Current Urban Agriculture in Vancouver

Community Gardens

Community Gardens can be found on park, school, city and transit-owned land. Vancouver currently has 18 operating community gardens, with two more under development, totaling 950 plots, which are gardened by approximately 1500 residents. However, the demand for community garden space far exceeds its availability. Most gardens have year-long waiting lists that average over 20 people (Kahn, 2006).

Educational Opportunities

School Gardens

From soil quality and climate cycles, to biodiversity and plant names, to nutrition and health, school gardens foster many ways for participatory learning opportunities. School gardens also contribute to food security and healthy eating among children by contributing to school lunch programs, and can reduce a school's food waste by composting. 23 schools in Vancouver grow food on site, though mostly herbs and berries (Barbolet, 2005).

The school garden at Grandview elementary school was planned and planted by students ages 3 - 13. It features native plants and sustainable water catchment systems, as well as an ethno-botanical First Nations garden, a butterfly and bird habitat garden, a children's organic garden, public art and garden plots for community members (Grandview School, 2006).



Grandview Elementary school garden sign



UBC farm volunteers

University Farm

The UBC Farm is a 40-hectare student-driven, model farm located on the University of British Columbia's campus. The UBC Farm integrates sustainable land management and food production practices with basic and applied research, innovation, education and community outreach. The mission of the farm is to "provide academic and practical leadership in the areas of agro-ecological design, community planning and development in a manner that benefits past, present and future community members, be they citizens, planners, designers, developers, managers, leaders or farmers." The farm provides educational programs and demonstration gardens for school children as well (UBC Farm, 2006).

Current Urban Agriculture in Vancouver



Creating Social Capital

Strathcona Gardens

An example of the way access to land can lead to a natural integration of social work, agriculture, conservation and recreation is Strathcona Community Garden, created by a citizen group, on public land, but with almost no public funding. In the last twelve years the Strathcona Community Gardeners Society has been involved in community development, park design and construction, organic agriculture education and wildlife habitat restoration, on three and a half acres in the East End of Vancouver—this in addition to feeding a number of low-income households.



Strathcona Gardens

Entrepreneurial Gardens

The Cottonwood Garden, operated by the **Environmental Youth Alliance** (EYA) is an acclaimed example of an entrepreneurial garden. It trains an average of 60 at-risk youth a year in alternative building, organic food production, garden management and other skills development. The garden has a large composting facility and a heritage orchard as well. The Environmental Youth Alliance is a non-profit organization whose vision is to build community and environmental health through hands-on, youth-centered, grassroots action (EYA, 2006).

Beyond Production

Farmers Markets

City-supported farmers markets can play a critical role in increasing access to locally grown, nutritious foods. Farmers markets are seasonal markets in public spaces that offer locally grown produce, and other value-added products. Farmers markets support local agriculture, boost the local economy, and benefit public health. Through vending licenses for micro-processed foods and handicraft sales, community economic development initiatives can be encouraged as well.

Vancouver has three farmers markets in the city (not including UBC Farm), running from May to October. They are run by **Your Local Farmers Market Society**, and are located in the Kensington-Cedar Cottage, Riley Park and West End neighbourhoods. Compared with other cities, Vancouver is poorly served by farmers markets, with one market for every 158,750 people. Seattle has six markets (1:108,895 people), while Portland has 11 (1:48,101 people) (Barbolet, 2005).



East Vancouver Farmer's Market

The Food Action Plan calls for changes that facilitate the creation of more farmers markets on city-owned land to meet rising demand. Currently, the goal of creating more markets is hindered by zoning regulations, health regulations, and other requirements (Mendes, 2004).



Current Urban Agriculture in Vancouver

Resources

UBC Farm

www.landfood.ubc.ca/ubcfarm/index.php

Grandview Elementary School

www.grandview.vsb.bc.ca/

Environmental Youth Alliance

www.eya.ca/

Your Local Farmer's Market Society

www.eatlocal.org

Vancouver Fruit Tree Project

www.vcn.bc.ca/fruit

Quest Food Exchange

www.questoutreach.org

City Farmer

www.cityfarmer.org

To find information on existing gardens, community events and more, go to:

www.vancouverurbanagriculture.ca

Gleaning programs

A gleaning program is a program that coordinates the harvesting of fruit or vegetables from private property. The produce can then be made into value-added products, such as jams or salsas and potentially sold to generate income, or donated to agencies such as food banks or community kitchens (Kalina, 2001). For example, the **Vancouver Fruit Tree Project** is a non-profit organization that links volunteer fruit pickers, private residents who have fruit trees, and local service centers to make a positive contribution to food security in Vancouver (VFTP, 2006).

Full Circle



Composting at EYA

Quest

In 2005/06, **Quest Food Exchange** rescued \$7.15 million worth of food—550,000 pounds of fresh produce, meats, baked goods and other staples per month—that would have otherwise gone to the landfill. Using this rescued food, Quest fed more than 45,000 people per month.

Quest is committed to a zero-waste philosophy. Any food not fit for consumption gets composted and all food packaging gets reused or recycled. With the help of UBC Waste Management Services and the Strathcona Garden, Quest turns 50,000 pounds of food waste into compost or animal feed every month (Quest, 2006).

City Farmer

City Farmer is a key player in Vancouver's urban agriculture movement. The nonprofit society was founded in 1978 to help urbanites grow food in their backyards and reduce waste through composting. Since 1991 City Farmer has partnered with the City of Vancouver to offer a demonstration garden and compost site, and to offer worm bins, worms and instructions to apartment dwellers for a small fee (IRDC, 2006).

Current Urban Agriculture in Vancouver



Environmental Youth Alliance created this resource guide to Vancouver's public food gardens. Not only does it show community, school and rooftop food producing gardens, but also farmers markets, compost demonstration sites, and publicly accessible fruit trees.



Local Policy Analysis

“Land use policies alone are not enough to strengthen local food systems. Municipalities must also develop social, economic, and transportation policies and programs that can facilitate land use planning in addressing food security issues.”

—Austin, 2004

Although there are many pockets supporting urban agriculture throughout the city, there is no overall strategy or city-wide policy to address urban agriculture on a comprehensive level. This stands in contrast to cities like Montreal, where gardens are protected through zoning as parkland, and to cities like Seattle, Portland, Toronto, and closer to home in Richmond, New Westminster, and North Vancouver, which all encourage the creation of community gardens in their City plans.

Naming urban agriculture in formal documents and policies gives recognition that urban agriculture is a valued amenity and viable land use. Even with the notable success of the existing School and Parks Board policies, it is clear that there is a need to further develop municipal support for urban agriculture in Vancouver (Bentley, 2005). For more detail, see Section Two.

There are several by-laws, regulations and policies in Vancouver and the region that are relevant to urban agriculture. A brief exploration of a sample of these documents highlights the need for an overall strategy to provide a comprehensive approach. As interest in urban agriculture continues to grow, Vancouver will need to develop and provide planning guidance regarding what and where opportunities are possible.

Local Policy Analysis



Draft Operational Guidelines for Community Gardens

To respond to the need for city-wide guidelines to direct the operation of gardens on property other than parkland, a proposal was put forward to Council on April 26, 2006.

The guidelines call on the City of Vancouver to provide information on community gardens to residents; assist interested groups in accessing suitable land; and assist with the development of a city-wide umbrella organization to support new and existing community gardens.

On September 15, 2005, City Council directed that a parcel rezoning and removal from the ALR be exchanged for the Community Amenity Contribution (CAC) in the amount of \$22,475, to be 100% utilized for urban agriculture amenities across the city. This money will be used to fund a community garden pilot project, which will include the creation of three new gardens to test out the proposed guidelines³ (Kahn, 2006).

Beekeeping Bylaw Amendment

Urban hobby beekeeping, or apiculture, provides increased biodiversity and pollination for plants in any type of garden and can be a safe and suitable activity for residential areas.

In July 2005, an amendment to the Health Bylaw to allow for hobby beekeeping within the City of Vancouver was approved by City Council. In addition, guidelines were adopted outlining good management practices for beekeeping in residential areas (City of Vancouver, 2006a)



Vancouver Food Policy Council

Vancouver's Food Policy Council (VFPC) was created in 2003, as part of the Food Action Plan approved by City Council. The vision of the VFPC is to support the development of a just and sustainable food system for the City of Vancouver that fosters sustainable equitable food production, distribution and consumption; nutrition; community development and environmental health. The VFPC has identified four priorities:

- a) Creation of a Food Charter for the City of Vancouver;
- b) Increased Access to Groceries for residents of Vancouver;
- c) Creating an Institutional Food Purchasing Policy and;
- d) Developing a Coordinated Effort towards Food Recovery.

Source:

www.city.vancouver.bc.ca/commsvcs/socialplanning/initiatives/foodpolicy/council.htm

³ See Appendix B for the draft community garden guidelines.



Local Policy Analysis

Resources

Draft Operational Guidelines 2006

www.city.vancouver.bc.ca/ctyclerk/cclerk/20060516/documents/a8.pdf

Food Action Plan

www.city.vancouver.bc.ca/ctyclerk/cclerk/20031209/rr1.htm

Park Board Community Garden Policy

www.city.vancouver.bc.ca/parks/info/policy/comgardn.htm

School Board Garden Guidelines

www.vsb.bc.ca/districtinfo/policies/f/fmrgardenplotsschoolgrounds.htm

SEFC Home Page

www.vancouver.ca/commsvcs/southeast/index.htm

Inventory of food-related programs, projects and services

www.city.vancouver.bc.ca/commsvcs/socialplanning/initiatives/foodpolicy/pdf/inventory.pdf

Action Plan for Creating a Just and Sustainable Food System for the City of Vancouver

On July 8, 2003, Council approved a motion supporting the development of a just and sustainable food system for the City of Vancouver that fosters equitable food production, distribution and consumption, nutrition, community development, and environmental health. The Action Plan included an interim work plan as well as the creation of a Food Policy Council and two city staff positions to support food system planning. The interim work plan identified many actions related to urban agriculture including: rooftop gardens, community gardens, farmers markets, and a food processing and distribution facility.

The Action Plan endorses the creation of urban agriculture on under-utilized city land, excluding parks, and the potential of urban agriculture on private developments (Mendes, 2004).

Park Board: Community Garden Policy

The Vancouver Park Board has recognized community gardening as a valuable recreation activity with community development, environmental awareness, social interaction and educational benefits since 1996. The Park Board Community Gardens Policy (Revised 2005) defines a community garden as “a community development program operated by a non-profit society” (City of Vancouver, 2006b).

In 2004, the Park Board passed a motion to explore the planting of fruit trees among streets, community gardens and public parks. The Park Board has identified opportunities such as: a trial period of selected fruit trees on streets, a community orchard if a stewardship group is identified, and running educational workshops on fruit production (Mendes, 2004).

While the Parks Board Community Gardens Policy has been successful in guiding community garden development on parkland, competing activities limit the scope of community gardens in parks (Kahn, 2006).

Local Policy Analysis



School Board Garden Regulations

The Vancouver School Board adopted guidelines supporting garden plots on their properties in 1989. The Board considers the installation of locally-initiated garden plots (maximum 100 sq. feet) on school grounds that have been proposed by school or parent organizations. Some start-up matching funds may be available, though costs and maintenance duties are upheld by the individual school (VSB, 1999).

South East False Creek

SEFC is a new community that is being developed as a “model sustainable community”. An urban agriculture strategy has been developed to explore the links between urban sustainability and food security, and is among the first studies in North America to explore the role urban agriculture could play in comprehensive planning of a new neighbourhood.

Urban agriculture initiatives mentioned in the Official Development Plan of this neighbourhood include: community gardens, edible landscaping in parks and school grounds, a farmers market, rooftop gardens, soil remediation and a commercial greenhouse demonstration site (SEFC, 2006).



Urban Agriculture as a Goal of Sustainability

Resources

Greenways Program

www.city.vancouver.bc.ca/engsvcs/streets/greenways/index.htm

Cool Vancouver

www.city.vancouver.bc.ca/sustainability/coolvancouver/index.htm

City Plan/ Community Visions Program

vancouver.ca/commsvcs/planning/cityplan/Visions/index.htm

Vancouver's Sustainability Principles

www.city.vancouver.bc.ca/sustainability/

Food policy supports the City's commitment to sustainability as well. In April, 2002, the City adopted a formal position, definition and principles on sustainability which states that sustainability requires integrated decision-making that takes into account economic, ecological and social impacts as a whole (City of Vancouver, 2006a).

Other City-wide initiatives include:

The **CityPlan Community Visions** program provides directions for Vancouver's neighbourhood planning, many of which support urban agriculture such as: defining neighbourhood character, improving safety, diversifying parks and public places, and protecting the environment. Most of the neighbourhoods that have completed the Community Visions program have supported community gardens to augment the greening of parks, streets, and public spaces (CityPlan, 2006).

Urban agriculture contributes to the City's commitment to reduce greenhouse gas emissions. The **Cool Vancouver Task Force** provides advice and guidance to reduce greenhouse gases throughout the region. Cool Vancouver was the driving force behind the **Community Climate Change Action Plan**, adopted by Council on March 29, 2005. The plan focuses on actions the city can take to reduce climate changing greenhouse gases, to reduce our energy consumption and to create a more sustainable city (Cool Vancouver, 2006).

The City **Environment Policy and Environmental Action Plan** (1996) commits the City to ensuring environmental considerations are integrated into all City of Vancouver decisions respecting planning, growth, service delivery, finance, and operations. Urban agriculture provides many environmental benefits to a city.

Vancouver's 1992 **Urban Landscape Taskforce** was created to improve understanding of the value of the urban landscape, and to recommend ways to manage, protect and enhance it. Their final report made a number of recommendations to Council for promoting community gardens through expansion of public greenways. Greenways are paths for pedestrians and cyclists that provide opportunities for urban recreation and enhance the experience of nature and city life (Greenways Program, 2006).

Policy Examples from Other Municipalities

New York State: In 1986, New York State formed an Office of Community Gardens within the Department of Agriculture and Markets. The Office is responsible for providing information on available vacant lands suitable for community gardens and helping community groups access the land by coordinating with other State departments.

Ottawa, ON: City Council passed the Community Garden Program Action Plan on October 27, 2004. This plan calls for modifying the zoning code to make community gardens an allowed use in all zones (except environmentally sensitive zones); look for opportunities to use vacant land for community gardens; provide a \$5,000 yearly fund to support new gardens; and provide free water access and cover liability insurance for gardens.

Washington DC: The District of Columbia Comprehensive Plan Act of 1984 called for the establishment of a Food Production and Urban Gardens Program, which was implemented in 1987. The program maintains a vacant lands inventory, provides technical assistance to community gardeners, and calls for educational gardens to be established.

Berkeley, CA: The Planning Commission General Plan includes actions encouraging food production training and organic agriculture education by the public school and university systems; local institutional purchasing; and rooftop and community gardens.

Chicago, IL: City Council in 1996 established a not-for-profit corporation, NeighborSpace, to manage small public properties as open space, including pocket parks and community gardens. The resolution recognized that neighborhood groups often lacked the resources needed to own and manage property, and it was in the interest of the City to make use of these properties as open spaces. Eight years later, NeighborSpace owns or leases 48 sites in 31 City wards, most of which are community gardens. This model protects the land long-term.

Source: Diggable Cities 2005



By-Laws and Zoning

There are many by-laws and zoning regulations that relate, or could potentially impact, the development of urban agriculture in Vancouver. As the demand for urban agriculture use grows, a comprehensive review is needed to explore how these regulations might offer more support to urban agriculture initiatives in Vancouver.

By-Laws

Health By-law No. 6580 regulates the keeping of livestock and other animals within the City. This includes “horses, donkeys, cattle, swine, sheep, goats, poultry or fowl”. The by-law has recently been updated to allow beekeeping. The keeping of chickens and other fowl, as well as rabbits can also be considered.

This by-law also regulates the sourcing, preparation, handling, storage and sale of food, which may limit entrepreneurial forms of urban agriculture.

License By-law No. 4450 outlines licensing requirements for business, including farmers markets, and food service outlets. This bylaw could be amended to support, for example, permanent indoor farmers markets containing production and processing facilities.

Street Vending By-law No. 478160 regulates mobile food vending units. Policies can be amended to include farm stands and to encourage sales of fresh, nutritious food as an alternative to junk food.

Water Rationing By-law No. 7109 prohibits watering any trees, shrubs or vegetables, except with a hand-held container or hose. Some exemptions are granted, such as for nurseries and commercial uses, however food production is not mentioned.

Street Tree By-law No. 5985. This by-law is administrated by the Parks Board. When appropriate, fruit trees could be added to the list of permitted species to be considered.

Solid Waste and Recycling By-law No. 8417. This by-law outlines the city’s responsibilities and limits for waste, yard waste and recycling collection. Expansion of composting services and food waste collection could be considered (City of Vancouver, 2004).

By-Laws and Zoning



Zoning

Vancouver's Southlands district, is the only designated Agricultural Land Reserve (ALR) in the city, and the only area that is zoned for agriculture. The RA-1 zoning designation allows field crops, orchards, nurseries and greenhouses, as well as retail associated with its agricultural use.

Urban agriculture is not mentioned in zoning as a permitted use in any other area. In residential, commercial, and industrial zones conditional uses include parks, botanical gardens, and community centres and neighbourhood grocery stores. Amending the zoning bylaw to designate urban agriculture activities, including retail, as a permitted or conditional use in all zones would increase the capacity for urban agriculture in Vancouver (City of Vancouver, 2004).

Zoning is generally used to separate incompatible uses and often put in place to separate characteristics of agriculture such as noise, smells, pollution, and increased traffic from impacting residents. However, urban agriculture is small-scale and for local consumption and can be designed and operated to minimize potential conflicts with surrounding areas. Defining the characteristics of urban agriculture as a separate use within the zoning by-law would protect it as a suitable urban land use (Diggable Cities, 2005).

It should be noted however, that where land values are high and little land is available, zoning may have little effect (Felsing, 2002). Therefore changing the zoning code in Vancouver needs to be done in conjunction with other measures to ensure support for urban agriculture at the municipal level.

Resources

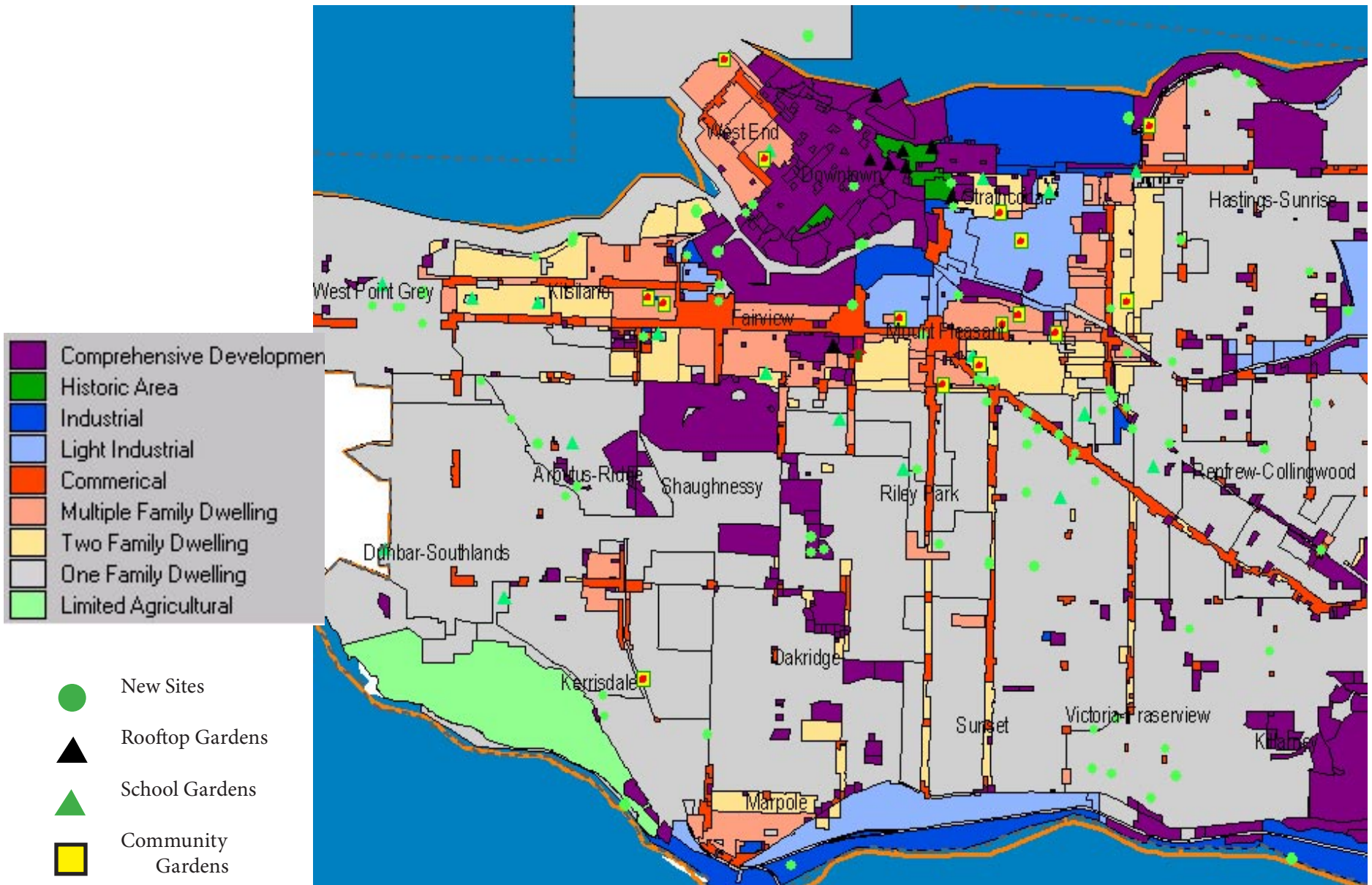
City of Vancouver Zoning and Development By-law No. 3575

www.city.vancouver.bc.ca/commsvcs/BYLAWS/zoning/zon&dev.htm

For additional information regarding City of Vancouver by-laws, policies, and guidelines that relate to the food system, and many specifically to urban agriculture:

www.vancouver.ca/commsvcs/socialplanning/initiatives/foodpolicy/pdf/foodbylaws.pdf

Zoning Map of Vancouver



Provincial and Regional Policies and Initiatives



Livable Region Strategic Plan

The Livable Region Strategic Plan (LRSP) is Greater Vancouver's regional growth strategy, adopted by the Board with support of all municipalities in 1996. The purpose of the plan is to help maintain regional livability and protect the environment in the face of anticipated growth. Vancouver's Regional Context Statement outlines its support for the LRSP. The LRSP is based upon four fundamental strategies, two of which directly support the expansion and promotion of urban agriculture:

Protect The Green Zone

The Green Zone is intended to protect Greater Vancouver's natural assets, including major parks, watersheds, ecologically important areas and farmland. Urban agriculture could be supported by the following goals:

- 4.1 the identification of additional areas to include in the Green Zone;
- 4.3 increased protection for Green Zone areas at risk from urban development;
- 4.4 the viability of agriculture through enhanced planning for agriculture as part of the region's economic base, and improved communication of the importance of agriculture for the region.

Build Complete Communities

The LRSP is intended to support the public's strong desire for communities with a wider range of opportunities for day-to-day life. Goal 8.3 states "an equitable distribution of public, social and cultural services and facilities". Urban agriculture activities support this goal by offering community gathering spaces and multiple social benefits (GVRD, 2006).

Agricultural Land Reserve

Vancouver is surrounded by the Agricultural Land Reserve (ALR). The ALR was introduced into provincial legislation in 1974 and has had significant impact on land use and urban development in the region. The ALR acts as an urban containment boundary, helping to reduce sprawl and encourage compact urban development. However, the ALR is under constant threat. Increasing development pressures and population growth have led to increasing applications for removal of land from the ALR. 2004 saw a 30% increase in applications for removal of land province-wide (Smart Growth, 2004).

Agricultural Land Commission Act (ALCA)

The purpose of the ALCA is to preserve agricultural land, encourage farming on agricultural land and encourage local governments to enable farming and other compatible uses in their plans, policies, and bylaws.

Local Government Act

Section 878 states that local governments may include in their OCPs: "policies...respecting the maintenance and enhancement of farming... in an area designated for agricultural use in the community plan" (ALC Brochure).



Provincial and Regional Policies and Initiatives

Resources on the Region

BC Stats: Quick Facts About British Columbia:

www.bcstats.gov.bc.ca/data/bcfacts.asp

Cities Plus

(Cities Planning for Long-term Urban Sustainability):

www.citiesplus.ca

Smart Growth:

www.smartgrowth.bc.ca

GVRD: Livable Regions Strategic Plan:

www.gvrd.bc.ca/growth/lrsp.htm

Agricultural Land Commission:

www.alc.gov.bc.ca



Regional Examples

Many municipalities around Vancouver are also encouraging urban agriculture in their city plans, policies and programs, in a variety of ways:

North Vancouver has a mandate to ensure community education, public access and organic gardening methods. Its Official Community Plan (OCP) references the importance of community gardens, and identifies high density areas as priority locations. The City has drafted a set of Community Garden Location Criteria. The City employs one planner to focus on urban agriculture, and pays for start up costs of new gardens, though NGO partnerships are responsible for operations.

Richmond. The OCP for the City of Richmond states, “promote community gardens as an authentic way of reflecting Richmond’s farming heritage, particularly in more urban areas.” The city also supports urban agriculture through its “Adopt-A-Garden” program, which allows citizens to develop gardens on vacant city land. The City prepares the ground for new gardens, offers training for volunteers, and provides other assistance.

New Westminster is supportive of urban agriculture through its OCP, which states: [The City of New Westminister] “encourage[s] the creation of community gardens managed by community organizations on residual land” (OCP Section 2.4). In January 2005, Council approved a review of the feasibility of community gardens and to conduct a land inventory of suitable sites for community gardens.

Burnaby has had gardens established in the 1970’s. The City of Burnaby includes approximately 70 acres of urban farmland, and produces 10% of all vegetables produced in the Fraser Valley (Barbolet, 2005). It has three large gardens, with over 500 plots in total (excluding school gardens). The program is run through the Parks Department and operated by a non-profit Gardening Association. The gardens are on city-owned land and leased to the Gardening Association for a nominal fee.

Source: Bentley, 2005.

North Vancouver OCP:

www.cnv.org//server.aspx?c=2&i=107

Richmond OCP:

www.richmond.ca/services/planning/ocp/sched1.htm

Richmond Community Gardens Program:

www.richmond.ca/parksrec/ptc/parks/community.htm

New Westminster OCP:

www.city.newwestminster.bc.ca/cityhall/planning/10official%20community%20plan/pdf%201/2.04.pdf

City of Burnaby:

www.burnaby.ca



Challenges to Urban Agriculture

After reviewing the existing activities, policies, and plans that address urban agriculture in Vancouver, the reality is there are some significant challenges to expanding urban food production in the City. Despite the many benefits of urban agriculture, there are trade-offs and decisions to be made, such as where new sites should go, who will manage the site, who will pay for start-up and operational costs, who can have access to these facilities, etc. All of these challenges make planning for urban agriculture a complex issue (Austin, 2004).

Access to Land

In a city that continues to grow in both population and property values, the availability of land is a significant obstacle to promoting urban agriculture in Vancouver. Unlike other North American cities that have an excess of vacant or abandoned properties in their city core, Vancouver is almost completely built out. The market value of land is high and housing demand continues to grow. The low revenues that urban agriculture produces cannot compete with the market-value of other forms of development. However, most urban agriculture sites are managed by a non-profit or social organization for the benefit of the community. Thus the less quantifiable social benefits should be taken into account.

There is also potential to develop urban agriculture initiatives on small spaces that do not compete with development needs, such as street right-of-ways, and rooftops. The public land inventory (Section Four) identifies potential city-owned land that could be used for urban agriculture.

Funding

City Council recently proposed the creation of more opportunities for urban agriculture—however, no resources were allocated to make this happen. While the land inventory identifies locations of potential new sites, funding is not currently in place to develop them. User fees from gardeners are minimal. With community gardens estimated to cost between \$5000-\$8000 for start-up costs, a strategic response to manage urban agriculture initiatives in a financially sustainable manner is needed (Kahn, 2006).

Land Tenure

Urban agriculture activities are often on leased land and have a limited license to use the land. In Vancouver, land tenure is generally granted for only 5 years. Without title to the land, or long-term leases, agriculture will always be vulnerable to development and gardeners will risk losing their investment when the land is taken for other purposes. For urban agriculture to thrive, some degree of permanence is needed.

Cost of Startup and Maintenance

Depending on the type of activity, start-up costs can be an obstacle for those with limited income. Costs can include: labour, management, water, tools, rent, insurance, processing, packaging and marketing. In Vancouver, start-up costs for new gardens are generally paid for by the City. However, as there is no management system in place, results vary—some gardens report paying for their own water and composting, whereas some receive it free of charge.

Challenges to Urban Agriculture



Ongoing maintenance is usually the responsibility of each garden or site. However, technical assistance or supplies can be an obstacle for gardeners. Gardeners report needing help accessing water and hoses, compost bins and soil amendments. As well, the planting of fruit trees is currently limited due to the potential of nuisance and health and safety hazards due to dropping fruit (Bentley, 2005).

Seasonal Limits

Although Vancouver's climate does allow for year-round growing, food production is seasonal and therefore not reliable as a primary source of food year-round. However, there are many innovative ways to extend the season such as greenhouses, use of waste heat, and growing crops, such as mushrooms or sprouts, indoors. Increasingly, community kitchens and neighbourhood centres are expanding their services to include workshops on the practice of preserving food for year-round use (Brown, 2003).

Profit Operations

There are many innovative models of urban agriculture as a means of small business development. Many programs teach job skills in production techniques and marketing of produce. In some places, community gardens sell their surplus at farmers markets and restaurants.

In Vancouver, there are licensing fees and health regulations prohibiting the sale of products from community gardens or other urban agriculture sites. The sale of produce on public lands is an issue that needs to be explored in greater depth. There is exciting potential for entrepreneurial or commercial urban agriculture ventures to contribute to the local economy.

Health Hazards

There are perceived health hazards due to composting facilities, attracting unwanted animals or pests, keeping bees or other animals, smell or noise pollution, pesticide use, etc. Most of these hazards can be avoided with proper management of the site and the use of appropriate technologies and approaches. Open communication with neighbours is also key to ensure support and mutual understanding around urban agriculture sites.

Sites usually need to be cleared and often soils need to be decontaminated, particularly from lead. Raised beds of imported soil or hydroponic methods that can be placed on top of contaminated soils is one alternative (Kaufman, 2001).

Perceptual Obstacles

Perceptual obstacles, or lack of political will, is another barrier to implementing urban agriculture. Agriculture is a low priority for most planners and politicians. There is still skepticism or concerns about site contamination, unsightliness, vandalism and costs, and the perception that agriculture just does not belong in the city. Education is still needed among planners, developers and residents of the many benefits urban agriculture can provide. Nurturing acceptance and support of urban agriculture takes advocating the multiple benefits of urban agriculture in a way that can be clearly seen and valued by decision makers and the public (Kaufman, 2001).

SECTION 4: PUBLIC LANDS INVENTORY



AND OTHER POTENTIAL OPPORTUNITIES
FOR URBAN AGRICULTURE

Urban Agriculture Land Inventory



The Action Plan for Creating a Just and Sustainable Food System for the City of Vancouver (2003) called for the identification of available public lands for urban agriculture use. The goal of the public land inventory therefore is to identify vacant or under-utilized space for community gardens or other urban agriculture uses on City-leased or City-owned property. The City owns a number of currently unoccupied properties in a variety of locations and settings that have great potential for urban agriculture. Using these properties for urban agricultural purposes offers many benefits to residents and local community agencies nearby.

The inventory attempts to fill in the gaps of data that are needed to create targets or goals to implement urban agriculture effectively, and to capitalize on emerging opportunities. It also serves the purpose of a public reference on urban agriculture in Vancouver and can be used in the process of building awareness its potential.

The inventory resulted in 77 potential sites for urban agriculture.



“Effective land use planning requires a comprehensive understanding of a variety of elements, including the spatial patterns of the area under study. Many agencies in British Columbia are finding that Geographic Information Systems (GIS), in combination with land use inventory data, is a useful tool in helping to understand, analyze and display these spatial patterns. By incorporating agricultural land use data into a GIS, people can enhance their knowledge... and be better prepared to plan for and promote agriculture.”

- Ministry of Agriculture, Food and Fisheries, 2004



Urban Agriculture Land Inventory

Inventory Methodology

The inventory was conducted in consultation with the Food Policy team of the Social Planning Department of Vancouver. A Working Group of City staff, Food Policy Council representatives, stakeholders and community members was established to advise the land inventory component of this project. The group as a whole met only once, but smaller subsequent meetings and correspondence followed to develop the evaluative criteria and potential uses to be considered in the inventory.

Addresses of available sites were then collected from participating departments, mainly the municipal Department of Engineering Services and the federal Department of Public Works, and compiled into a database. Additional sites identified through advisory meetings with the Working Group and community consultations were also added. The sites were mapped and analyzed with aerial photos using the City of Vancouver's GIS mapping application, VanMap. The sites were evaluated based on the criteria developed by the Working Group and attributed accordingly. Attributed characteristics include surface coverage, access, the type of potential agricultural use, and a suitability rank (using a scale of one to five) based on the visual assessment of the site.

Sites were not removed from the inventory based on the analysis in order to maintain the maximum number of potential sites available. However, parcels that had no access, were slivers, or were obviously unusable were deleted.

Based on geographic distribution and a high rank for potential, 30 priority sites were selected for site visits. As a result of the site visits, five were selected as site "pilot projects" in this report. These pilots serve to highlight the variety of potential uses within the inventory.

Technical Limitations

A significant limitation of this inventory, is that there is little data available of vacant public land. Many of the departments contacted did not have any record of existing vacant or under-utilized land within their jurisdiction. Of the data received, none of it was in GIS format, making it difficult to accurately represent or track what is available. Repeatedly it was mentioned that the only way to find existing vacant lots was to use VanMap's aerial photographs to visually assess the entire City.

Assumptions

As the inventory includes only the departments that had data available, it should be considered an introduction, rather than a comprehensive review of available land. To expand this inventory, a partnership with the Parks Board, Department of Real Estate, and other Departments needs to be established.

The removal of unsuitable parcels was based on spatial analysis using VanMap, and consultation with City staff. Properties were removed if they were smaller than the minimum size according to the developed criteria, slivers, or otherwise unusable (for example, most traffic circles, islands, and bulges were removed).

Information regarding future development and plans is not included. Some of the sites included in the inventory were identified by community consultation and may be on private land, or be otherwise outside of the City's jurisdiction. For the purposes of this project, it is assumed that all of the properties in the inventory are available for use.

Urban Agriculture Land Inventory



Site Criteria

A Working Group was established to develop evaluative criteria by which to classify vacant or under-utilized parcels. In order to maintain the maximum number of potential sites available, sites were not removed from the inventory based on these criteria, but rather attributed with this information for future analysis.

- **Physical criteria:** Tree canopy/ sunlight, impervious surface, adjacent buildings, contaminated soil, proximity to other urban agriculture activity, visual impression,
- **Social criteria:** Access to parking and/or transit, bikeway proximity, safety, opportunities for community capacity building, proximity to density or potential users.
- **Land use criteria:** Block ends, right of ways, traffic circles, edges and corridors, institutional or industrial lands, rooftops on public buildings, City, Crown and Provincial ownership of land.

Other criteria were identified that would need to be assessed through further analysis based on the specific circumstances of each site. These include water access and availability, slope, and soil quality, as well as social criteria such as demonstrated need and neighbourhood support.



Benefits of a Land Inventory

- Enhances knowledge of potential sites for urban agriculture and promotes urban agriculture in response to City policy.
- Provides a record of actual and potential agricultural land uses that can act as a benchmark for monitoring land use change.
- Identifies connections between urban agriculture and complementary City priorities including sustainable communities and capacity building.
- Enhances the information base to assist land use decision-making including community plans and bylaw updates.



Inventory Categories

Examples of Urban Agriculture Land Inventories

Portland's Diggable City Project;
Portland State University
www.diggablecity.org/

Making the Edible Landscape: A Study of Urban Agriculture;
McGill University
www.mcgill.ca/mchg/projects/el/

AgFocus: A Guide to Agricultural Land Use Inventory; Ministry of Agriculture, Food and Fisheries
www.agf.gov.bc.ca/resmgmt/publist/800series/830110-3.pdf

Categories of Uses

The sites are divided into two general categories: small-scale and large-scale urban agricultural uses. The sites were categorized both according to size and the type of use they might accommodate. Parcels categorized for small-scale agriculture have a pervious surface area of less than 1000 square meters; parcels with over 1,000 square meters of pervious surface were considered for large-scale agricultural uses. Within these two categories is a subset of agricultural activities: community gardens and urban agriculture on impervious surfaces. Community gardens could be considered on parcels with a minimum pervious surface area of 150 square meters and any parcel with 465 square meters or more of impervious surface or poor soil agriculture was considered impervious surface.

Small and large-scale agriculture includes a variety of activities, ranging from greenhouses and farm stands to forest farming and pocket farms. For a community garden, the site must meet criteria of appropriate growing conditions and community access to support individual or communal garden plots. Impervious surfaces may include a variety of uses from indoor production, greenhouses, processing facilities, markets and container gardens.

Inventory Categories



	Primary Parcel Category		Subset Category	
Category	Large-Scale Growing Operations	Small-Scale Growing Operations	Community Gardens	Growing on Impervious Surfaces or Poor Soil
Size*	0.1 hectare+ (1000 sq. m+)	.009 - 0.1 hectare (92 -1000 sq. m)	0.015 - 1.4 hectare (150-14,000 sq. m)	.045 hectare+ (465 sq. m+)
Use	CSAs, urban farms, community orchards, animal husbandry, horticulture, nursery, beekeeping	Farm stands, educational gardening programs, composting, vermiculture, food bank gardening, herb growing, beekeeping, market gardens, edible landscaping, fruit trees	Gardens with individual or communal plots; gardens with shared space and resources	Vertical gardening, indoor growing (sprouts, mushrooms, aquaculture, vermiculture), greenhouses, farm stands, processing facilities, farmers markets, container gardening, hydroponics

Table 1: Urban Agriculture Categories of Use

* Size calculation based on Diggable City Project for Classification 1, 2 and 4. The Diggable City calculations for community gardens were more narrow in scope than the sizes of existing community gardens in Vancouver. Therefore this calculation was based on the range of existing Vancouver gardens, from McSpadden (.015 ha) to Strathcona (1.4 ha). The Diggable City calculations were (.069-.2 ha, or 697-2,090 sq. meters).



Inventory Summary of Findings

Summary of Findings

Potential Sites

for Urban Agriculture: 77

West Vancouver: 27

East Vancouver: 46

Categories	# of Sites
Large Scale	20
Small Scale	49
Community Gardens	37
Impervious Surface	16

Summary of Findings

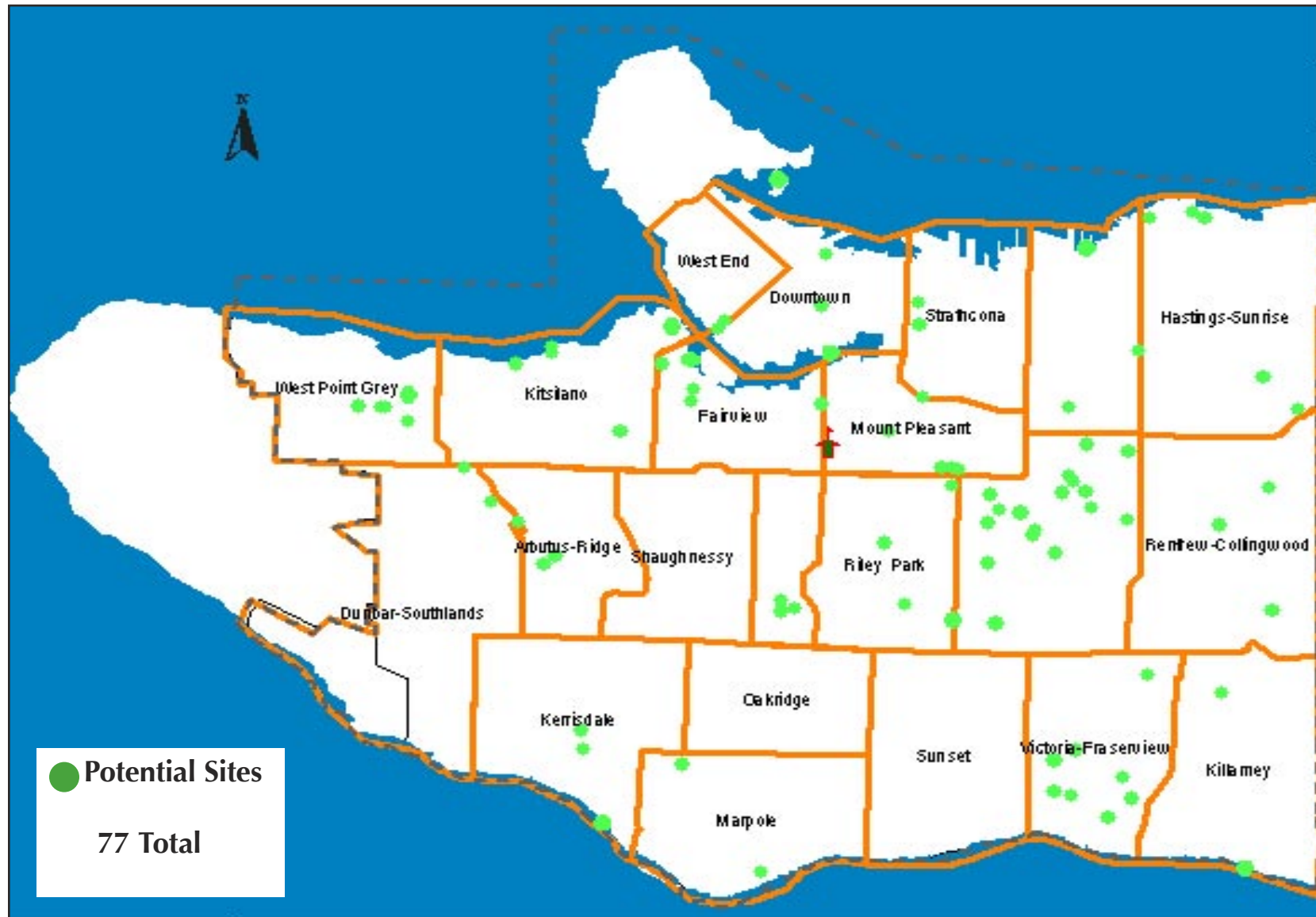
Upon inspection, many of the sites identified do not appear to be ideal for agricultural purposes: some sites are completely covered with trees, others are in single-family residential areas or near heavy traffic, and some contain areas of steep slope. Nevertheless, such sites have not been removed from the data. The inventory currently represents sites that could have potential for a variety of agricultural uses, from growing mushrooms under heavy tree canopy to container gardens or markets on paved properties to large-scale farming, greenhouses and even small farm stands.

The wide variety of uses proposed has resulted in an inventory of parcels of various shapes and characteristics that will require internal agency review, input from the public, and further analysis based on the site-specific needs of its potential agricultural use. The diversity of potential urban agricultural uses allows for a multitude of opportunities to expand urban agriculture in Vancouver.



My Own Backyard Community Garden

Potential Urban Agriculture Sites in Vancouver



Source: VANMAP; City of Vancouver

1: Pilot Site



Address: W 8th Av and W Broadway

Neighbourhood: West Point Grey

Management: Engineering Services

Size: 1550 sq meters

Zoning: RS-1

Surrounding Uses:

school, park, greenway

Access: on bikeway, bus access

Category: large-scale agriculture/
community garden

Existing Conditions/ Potential Uses:

This long planting strip next to the Off-Broadway bikeway has potential for a large-scale allotment garden or a community garden. Adjacent to a school and a well-used community park, this site would serve well as a demonstration garden or educational site and could contribute to school activities and meal programs. It is also near the future Spirit Trail Greenway. The surface is grass and gets full sun, but is on a slope. Terraced gardening techniques or planter boxes would be appropriate. This neighbourhood is mostly single-family housing, but there are some apartment buildings nearby. Adjacent residents would need to be consulted to protect their view. Currently, there are no community gardens available in this neighbourhood.



Pilot Site #1: View Facing East

2: Pilot Site

Existing Conditions/ Potential Uses

This site offers a good example of how urban agriculture can be incorporated into small spaces. This wide planting strip on the corner of a busy traffic corridor and a quiet residential side street, has good access for pedestrians and is near the Lakewood bikeway. With a flat surface and ample sunlight, this site would be well-suited for small-scale agriculture, such as small raised beds or container gardening. Local businesses and residents would provide many ‘eyes on the street’ and could act as stewards of the site. A nearby restaurant or community kitchen could use herbs and vegetables grown here for their services. Or it could be developed as a site for a farm stand. There are no other urban agriculture sites in this area. The Department of Engineering Services considers sites like this to have “under-utilized potential”.



Pilot Site #2: View Facing East



Address: Nanaimo St and Charles St

Neighbourhood:
Grandview-Woodlands

Management: Engineering Services

Size: 614 sq meters

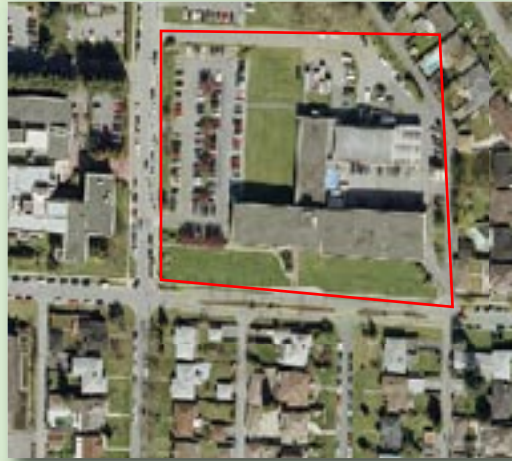
Zoning: RS-1

Surrounding Uses: residential, heavy traffic throughway

Access: good pedestrian access; bus and bike accessible

Category: small-scale agriculture

3 : Pilot Site



Address: 657 W 37th Av

Neighbourhood: South Cambie

Management: Public Works (Federal)

Size: 24,872 sq meters

Zoning: CD-1

Surrounding Uses:
residential, Greenway

Access: proximity to two bikeways,
parking

Category: large-scale agriculture

Existing Conditions

This site is owned by the Public Works Department. It is a large property with many opportunities for urban agriculture. A flat grass surface is in front of the building, and a large parking lot is in the back. There are several similar properties managed by Public Works in the vicinity. Public Works is supportive of urban agriculture on their properties, but would need to go through an extensive review process before implementation. This property is near two bikeways, and pedestrian friendly.

Potential Uses

The sunny, grass area of this site has potential for a visible demonstration project, such as garden plots or a community orchard. On weekends, when the large parking lot is empty, a farmers market or farm stand might be an ideal way to make use of this space. As well, the flat roofs of the building could potentially be used for rooftop gardening.



Pilot Site #3: View Facing East

4: Pilot Site

Existing Conditions

Although not on public land, this church parking lot offers a variety of opportunities for urban agriculture, and highlights the possibility of expanding urban agriculture beyond City-owned properties. This site includes a parking lot that is under-utilized most of the week, and a wide planting strip. The Pastor of the church is very supportive, and exemplifies the importance of partnerships to implement urban agriculture throughout the city in creative ways.

Potential Uses

The parking lot could be used for a small farmers market or farm stand to serve the local community. Container plots could also be utilized around the perimeter of the parking lot. The planting strip next to the parking lot could be planted with a small garden or fruit trees. On-site food production activities could be incorporated into church programs and meal services. Located in a diverse neighbourhood, with access to transit and bikeways, this site could become an important hub in the community for local food.



Pilot #4: View Facing North



Pilot Site #4: View Facing East:



Address: Windsor St and E 19th Av

Neighbourhood:

Kensington-Cedar Cottage

Management: Church of Nazarene (Private)

Size: N/A

Zoning: RM-1

Surrounding Uses: church, school, commercial, multi-family residential

Access: bus and bike accessible

Category: small-scale agriculture/impervious surface

5: Pilot Site



Address: 3580 Walker St

Management: City of Vancouver, most likely Real Estate Services

Neighbourhood
Kensington-Cedar Cottage

Size: N/A

Zone: CD-1

Surrounding Uses: residential, school, park

Access: transit and bike accessible, sidewalks and parking on side street

Category: large-scale agriculture/
community garden

Existing Conditions/ Potential Uses

This large site is located within a residential area and is adjacent to the skytrain and the BC Parkway bikeway. The surface is mostly level and covered with grass and small shrubs, with some large trees on the perimeter. It was acquired by the City of Vancouver, but has been subdivided for resale. The size of this site lends itself well to large-scale agriculture use, such as a CSA or demonstration urban farm. The CD-1 zoning may offer more flexibility in potential types of activity. It would be a good site to pilot a commercial venture, as proximity to a residential area would ensure a customer base, though traffic and noise would need to be kept to a minimum for residents. Due to its proximity to a school and transit, this site would also serve well as an educational resource.



Pilot Site #5: View Facing North

Other Opportunities for Urban Agriculture



The urban agriculture inventory primarily focuses on the potential of public lands for urban agriculture. Given the limited amount of land available in Vancouver however, other potential opportunities to expand urban agriculture should be explored. Many of these activities are already beginning to happen in Vancouver—with municipal support, urban agriculture could thrive in a variety of settings throughout the city.

Rooftop Gardens

Recently, the lack of vacant land and green space in the city, has led to rooftop gardening. Rooftop garden plots on new developments have sold out quickly. There are over 200 green roofs in Vancouver, but only 10% produce food—mostly on social housing, co-ops, or restaurants. Public access to roofs can be a potential barrier, as well as structural capacity of older buildings. Rooftops are a vastly under-tapped resource for food production in the city that need to be explored.



New downtown condo tower - the Freesia - develops community garden plots on their rooftop.



What Yaletown might look like with rooftop gardens

Land Trusts

Urban agriculture can take years to get established for production to be viable. Land trusts and conservation covenants can be set up on private or public lands to protect urban agriculture sites into the future. This would ensure food production and open space in cities as a protected use (Balmer, 2005).



Other Opportunities for Urban Agriculture

Community Partnerships

Institutional facilities throughout the city that offer public services or community gathering spaces often have opportunities for urban agriculture activities. Partnerships could be developed with churches, community centres, housing centres and non-profit agencies to establish support and develop more initiatives. Community gardens could be incorporated as an option in the planning and redesign of such facilities.



Housing Cooperative Community Garden at Mole Hill



The Gresham Hotel housing centre has started a rooftop garden for residents

Community organizations can help with management aspects of urban agriculture programming as well.

Private New Developments – Amenity Bonusing

Developing a package of incentives such as density bonuses and tax credits for developers who incorporate urban agriculture into their designs may help to promote urban agriculture in the private realm.

Density bonuses grant height or density increase in return for community benefits. Food-related benefits have typically not been secured through density bonusing, but could potentially be used as a mechanism for creating opportunities for urban agriculture. In Toronto, a community garden and a grocery store for seniors has been secured through this type of legislation (Austin, 2004). The City of Portland currently offers an increase in Floor Area Ratio for buildings utilizing rooftop gardens. There is significant potential in Vancouver to capitalize on density bonusing for urban agriculture and develop public-private partnerships.

Stormwater Management and Permaculture

Urban agriculture can serve to showcase innovative storm water management techniques and water conservation. Permaculture systems are designed to conserve water by maximizing production while minimizing inputs (Balmer, 2005).



City Farmer demonstration garden and water management

Other Opportunities for Urban Agriculture



Transit Corridors

Another potential use of space for urban agriculture is along transit corridors. Gardens have started to develop under the skytrain rail in partnership with Translink, and have proven to be successful examples of making an unused space more productive and welcoming.

The Arbutus Corridor along the railway tracks stretches from False Creek to the Fraser River. Parts of this corridor are already being used as community garden plots by nearby residents. Developing this corridor as a greenway that incorporated urban agriculture could create an impressive model of urban sustainability.

Allocating these vacant lands to interested community groups and residents could decrease maintenance costs and create green cover of otherwise unused and often unsightly areas.



Collingwood community garden under the skytrain track



Arbutus Corridor: allotment gardens along the railway track

A photograph of a dense forest with tall trees and a path, framed in a light blue oval. The text is centered over the image.

**SECTION 5:
RECOMMENDATIONS**

Recommendations to Expand Urban Agriculture In the City of Vancouver



Vancouver is in a position to elevate the planning focus on urban agriculture and increase opportunities for implementation. The challenges related to urban agriculture have prevented it from being realized to its full potential. However, the findings in this report suggest that urban agriculture can provide many benefits to a city, and should be given municipal support. The following recommendations are made to the City of Vancouver to expand and implement urban agriculture:

1. PROVIDE ACCESS TO INFORMATION AND RESOURCES

- Develop an inventory management plan for administering the use of the sites identified in a way that is equitable and sensitive to the needs of surrounding neighbourhoods. Make the inventory data accessible to the public.
- Expand the inventory further and develop use-specific evaluation criteria for reviewing parcel suitability. This should be done through a multi-Department effort.
- Using the inventory, find space for and build new community gardens wherever there is demonstrated local demand. Work with private landowners and other levels of government to identify where community gardens might be established on land or adjacent to facilities not owned by the city.
- Ensure a variety of land tenure options are available and easily accessible. Assist current gardens to arrange long-term leases.
- Create opportunities for public engagement and public education in the process of creating more urban agriculture sites.

2. REVIEW ZONING AND POLICY

- Conduct a comprehensive review of policy and zoning regulations to mitigate obstacles and improve opportunities for urban agriculture. This could include forming an Urban Agriculture Commission consisting of citizens and city representatives that would review plans and policies on an ongoing basis and make recommendations on urban agriculture issues.
- Relax zoning bylaws to allow urban agriculture in more areas. Zoning bylaws and policies should be revised to allow produce from community gardens to be sold, either at farmers markets, or on-site at 'the gate'. Zoning changes should be considered to allow for raising chickens, and other small-scale agricultural uses.
- Incorporate urban agriculture into new city-led and private developments as a community amenity. This could include increasing the availability of sites for urban agriculture, and developing incentives such as density bonuses and tax credits for developers who incorporate urban agriculture into their designs.
- Adopt a formal municipal policy on urban agriculture that addresses environmental, health, and social benefits of urban agriculture and provides a vision for the future of urban agriculture in and around Vancouver.



Recommendations to Expand Urban Agriculture In the City of Vancouver

3. DEVELOP INSTITUTIONAL SUPPORT

- Facilitate cooperation and partnerships between the Parks Board, School Board, the Office of Sustainability, Engineering Services, Social Planning, Food banks and other service agencies, and other relevant City departments and community services to promote urban agriculture.
- Create a formal municipal community garden program, with City staff designated and funding available. This program should be responsible to review plans and policies related to urban agriculture, as well as to provide assistance and resources to current gardeners and to manage the creation of additional sites throughout the city.
- Develop a formal partnership with a leading non-profit agency to provide or assist with management of a city-wide urban agriculture program. There are several non-profit agencies in Vancouver with well-established ties to the community and extensive expertise in urban agriculture.
- Streamline policies to create a more efficient process of community and government engagement. Planners can play a role as liaisons between communities and municipal bureaucracies, and to assist community groups in accessing resources such as water, land, funding, and information.
- Create a regional umbrella organization with a mandate to advise and support the formation of a comprehensive regional community garden policy. This organization should be composed of representatives from municipal governments, food security NGOs, and other community organizations, in order to shape a vision for the future of urban agriculture in the region.

4. DIRECT MARKETING

- Support locally-managed, small-scale farming and food initiatives that are economically viable for local farmers and preserve our agro-ecosystems (and all ecosystems).
- Support direct marketing initiatives such as farmers markets, farm gate sales, Community Supported Agriculture (CSA), and Buy Local programs to link producers with consumers and build support for urban and peri-urban agriculture.
- Encourage and expand local processing centers and the local food retail sector to create partnerships with local agriculture and community agencies.
- Encourage an institutional purchasing policy for the City that would mandate schools, hospitals, and other public institutions to buy from local sources.
- Create consumer education campaigns on local seasonal foods to raise awareness of urban and peri-urban agriculture. This could include resources on seasonal availability, and techniques for growing food in small spaces.

The range of challenges that community gardens address suggest that governments...should be flocking to include them in their mandates. [But], a number of governments...are lagging behind...Nonetheless, it seems inevitable that governments...will follow—there are very few initiatives that require so little investment for such an abundance of positive results.

— Emily MacNair (2002a)



**REFERENCES
AND
APPENDICES**

References

Agricultural Land Commission (ALC). *ALR and Community Planning Policies Report*. Burnaby, BC. [Brochure]

Austin, R. and Chauhan, U., Fung, F., Pearsall, C. (2004). *Thought for Food: Section 37 of the Planning Act and Food Access*. Program in Planning, University of Toronto.

Bhatt, V., Kongshaug, R., Eds. (2005). *Making the Edible Landscape: A Study of Urban Agriculture in Montreal*. Minimum Cost Housing Group, School of Architecture, McGill University.

Balmer, K. et al. (2005). *The Diggable City: Making Urban Agricultural a Planning Priority*. Prepared for the City of Portland, OR. School of Urban Studies and Planning, Portland State University.

Barbolet, H. (2005). *Vancouver Food System Assessment*. Forum of Research Connections (FORC) research group. Joint Project of Western Economic Diversification Canada, Department of Social Planning of City of Vancouver, SFU's Centre for Sustainable Community Development, and the Environmental Youth Alliance.

Bentley, S. (2005). *Community Garden Background Paper*. Prepared for the Social Planning Department, City of Vancouver.

Brown, K., Carter, A. (2003). *Urban Agriculture and Community Food Security in the United States: Farming from the City Center to the Urban Fringe*. A primer prepared by the Community Food Security Coalition's (CFSC) North American Urban Agriculture Committee. CFSC, Venice, CA.

City Farmer website (2006a). Retrieved on July 14, 2006 from: <http://www.cityfarmer.org/>

City Farmer website (2006b). Lettuce Link Program Description. Retrieved on July 14, 2006 from: <http://www.cityfarmer.org/lettucelink.html>

City Plan/Community Visions website (2006). City of Vancouver. Retrieved on July 14, 2006 from: <http://vancouver.ca/commsvcs/planning/cityplan/Visions/index.htm>

City of Portland (2003). *Food Policy Recommendations*. A Report by the Portland-Multnomah Food Policy Council.

City of Montreal (2002). *Master Plan*. Retrieved August 11, 2006 from: http://ville.montreal.qc.ca/portal/page?_pageid=2762,3099643&_dad=portal&_schema=PORTAL

City of Seattle, Department of Neighbourhoods, P-Patch Community Garden Program, Retrieved on July 14, 2006, from: <http://www.cityofseattle.net/neighborhoods/ppatch/>

City of Toronto (2006). *Food Charter*. Retrieved on August 10, 2006 from: http://www.city.toronto.on.ca/food_hunger/pdf/food_charter.pdf

City of Toronto (2003). *Tending the Garden*. A report of the Food and Hunger Action Committee. Retrieved on August 10, 2006 from: http://www.toronto.ca/food_hunger/pdf/tendingthegarden.pdf

City of Vancouver (2004). *City of Vancouver By-laws, Policies, Guidelines and Decisions Related to the Food System – Draft*. Prepared by the Social Planning Department.

City of Vancouver (2005, July). *City of Vancouver Urban Agriculture Strategy: Proposed Framework - Draft*. Prepared by the Social Planning Department.

References cont.

City of Vancouver (2006a). Social Planning Department website. Retrieved on July 19, 2006 from:
<http://vancouver.ca/commsvcs/socialplanning/initiatives/foodpolicy/key.htm>

City of Vancouver (2006b). Department of Parks and Recreation. Community Garden Policy. Retrieved on July 14, 2006 from:
<http://www.city.vancouver.bc.ca/parks/info/policy/comgardn.htm>

The Cost of Eating in BC: Impact of a low-income on food security and health. (2004). Dieticians of Canada and the Community Nutritionists Council of BC. Retrieved August 2005 from:
<http://www.dietitians.ca>

Community Food Security Coalition (CFSC) website (2006). Retrieved July 14, 2006 from:
http://www.foodsecurity.org/us_home.html

Cool Vancouver Program website (2006). City of Vancouver. Retrieved on July 14, 2006 from:
<http://www.city.vancouver.bc.ca/sustainability/coolvancouver/index.htm>

Environmental Youth Alliance website (2006). Vancouver Urban Agriculture Project. Retrieved on July 14, 2006 from:
<http://www.vancouverurbanagriculture.ca/>

Evergreen Foundation. *Healthy Communities*. Distributed at World Planners Congress, June 2006. [Brochure].

Felsing, R. D. (2001, Nov. 14). *How Community Gardens are Treated in the Planning Documents and Zoning Ordinances of Selected Cities*. Memorandum prepared for the Madison Ad-Hoc Committee on Community Gardens. Department of Urban and Regional Planning, University of Wisconsin-Madison.

Felsing, R. D. (2002, Apr.2). *The Pros and Cons of Zoning for Community Gardens*. Memorandum prepared for the Madison Ad-Hoc Committee on Community Gardens. Department of Urban and Regional Planning. University of Wisconsin-Madison.

Growing Green Project (2004, May). *Law and Policy Reform for Sustainable Food Systems in Southwestern British Columbia: Policy Recommendations*. Farm Folk City Folk. Submitted to Agriculture & Agri-Food Canada and the Voluntary Sector Initiative; Retrieved on June 3, 2006 from:
<http://www.ffcf.bc.ca/GrwingGreen.html>

Friends of Portland Community Gardens (FriendsPDX) (2006). Retrieved on July 14, 2006 from:
<http://www.friendspdxgardens.org>

Grandview Elementary School website, retrieved on August 11, 2006 from:
<http://www.grandview.vsb.bc.ca>

Greater Vancouver Regional District (GVRD) (1999). *Livable Region Strategic Plan*. Retrieved on July 14, 2006 from:
<http://www.gvr.bc.ca/growth/lrsp.htm>

Greenways Program website (2006). City of Vancouver. Retrieved on July 14, 2006 from:
<http://www.city.vancouver.bc.ca/engsvcs/streets/greenways/index.htm>

Growing Gardens website (2006). Retrieved on July 14, 2006 from:
<http://www.growing-gardens.org/>

Hess, David (2005). *Case Studies of Community Gardens and Urban Agriculture: Portland, Oregon*. Retrieved on June 3, 2006 from:
<http://www.cityfarmer.org/>

References cont.

International Development Research Council (IRDC) (2006). *Urban Agriculture in Vancouver*. Slideshow prepared for the World Urban Forum. Retrieved on July 14, 2006 from:
http://www.irdc.ca/wuf/ev92548-201-1-DO_Topic.html

Kahn, D., Dixon, T. (2006, April 24). City of Vancouver. *Community Garden Pilot Project Administrative Report*. Retrieved on July 14, 2006 from:
<http://vancouver.ca/ctyclerk/cclerk/20060516/documents/a8.pdf>

Kalina, L. (2001). *Building Food Security in Canada: From Hunger to Sustainable Food Systems: A Community Guide*. 2nd ed. Kamloops Foodshare.

Kanellakos, S. (2004, August 9). *Model to Support Community Gardening in Ottawa*. City of Ottawa Report to Health, Recreation, and Social Services Committee.

Kaufman, J., Bailkey, M. (2001). *Farming Inside Cities*. Land Lines Newsletter, January 2001, V.13:N.1. Lincoln Institute of Land Policy. Retrieved on September 23, 2004 from:
<http://lincolninst.edu/pubs/pub-detail.asp?id=261>

Lettuce Link Website (2006). Fremont Public Association. Retrieved on July 14, 2006 from:
<http://www.fremontpublic.org/client/food.html#LettuceLink/>

MacNair, E. (2002a). *Seeds of Success: Growing Healthy Communities Through Community Gardening*. POLIS Project on Ecological Governance, University of Victoria.

MacNair, E. (2002b). *The Garden City Handbook*. POLIS Project on Ecological Governance, University of Victoria.

Mendes, W. (2004). *Creating a Just and Sustainable Food System for the City of Vancouver*. Cities Feeding People Workshop Paper. International Development Research Centre.

Mendes, W. (2006, January 10). *Subject: Urban Agriculture Policy Statement*. City of Vancouver Policy Report –Draft.

Ministry of Agriculture, Food and Fisheries (MAFF) (2004). *AgFocus: A Guide to Agricultural Land Use Inventory*. Retrieved on August 11, 2006 from:
<http://www.agf.gov.bc.ca/resmgmt/publist/800series/830110-3.pdf>

P-Patch Trust website (2006). Retrieved on July 14, 2006 from:
<http://www.ppatchtrust.org/>

Potvin, K. (2005, December). *Strip Farming in Vancouver*. The Republic: Vancouver's Opinionated Newspaper, No. 128. Retrieved on March 20, 2006 from:
<http://www.republic-news.org/>

Rhoads, A. et al. (2006). *The Diggable City Phase 2: Urban Agriculture Inventory Findings and Recommendations*. Portland-Multnomah Food Policy Council.

Rideout, K. (2005). *Canada's Food System: Does it exclude our most vulnerable people?* Social Planning and Research Council of British Columbia (SPARC BC). Newsletter; Summer 2005 ed., V.22, I.3.

Seattle Tilth website. Retrieved on July 14, 2006 from:
<http://www.seattletilth.org/resources/articles/citychickensregulations/>

Smart Growth BC (2004). *Smart Growth and the ALR. Annual Report [Brochure]*.

South East False Creek (SEFC) website. City of Vancouver. Retrieved on July 14, 2006 from:
<http://www.vancouver.ca/commsvcs/southeast/index.htm>

Toronto Food Policy Council (TFPC) website, Retrieved on July 14, 2006 from:
http://www.toronto.ca/health/tfpc_index.htm

Strutynski, N. (2005). *Edible Landscaping Project - Final Report*. Prepared for the Social Planning Department, City of Vancouver.

Quayle, Moura (1986). *Report On Community Gardening In Canada*. University of British Columbia.

Quest Food Exchange website. Retrieved on July 14, 2006 from:
<http://www.questoutreach.org/>

UBC Farm website. Retrieved on July 14, 2006 from:
<http://www.landfood.ubc.ca/ubcfarm/index.php>

Vancouver Fruit Tree Project (VFTP) website . Retrieved on July 14, 2006 from:
<http://www.vcn.bc.ca/fruit/>

Vancouver School Board (VSB) website. (Revised 1999). School Board Garden Guideline. Retrieved on July 14 2006 from:
<http://www.vsb.bc.ca/districtinfo/policies/f/fmrgardenplotschoolgrounds.htm>

Appendix A: Glossary

Apiculture – The raising and care of honey bees for commercial or agricultural purposes.

Aquaculture – A form of agriculture that involves the propagation, cultivation and marketing of aquatic animals and plants.

Biodiversity – The variety of species and ecosystems, the variability of genes within the species and the ecological complexes of which they are a part.

Community Garden – A neighborhood-based urban agricultural activity that can contribute to community development, environmental awareness, positive social interaction and community education.

Compost – A mixture that consists largely of decayed organic matter and is used for fertilizing and conditioning land.

Community Supported Agriculture (CSA) – A practice where people purchase a share of a farm's harvest, helping to cover its yearly operating budget. In exchange, the farm provides a supply of fresh produce throughout its growing season.

Eco-roofs – Thin layers of living plants installed on top of conventional roofs. Properly designed, they are stable, living ecosystems that replicate many of the processes found in nature.

Roof-Top Garden – Usually refers to a roof-top that is suitable in structure and accessibility for food production.

Food Shed – Like a watershed, describes the flow of food from an area where it has been grown into the area where it will be consumed. A revived term for thinking about local sustainable food systems.

Farm Stand – A temporary or permanent structure used for the display and sale of agricultural products.

Food Miles – The distance food travels “from farm gate to dinner plate”, or from where it is grown or raised to where it is ultimately purchased by the consumer. Generally food miles measure the amount of fossil fuels and air pollution involved in transporting food. The average distance food travels is 1500 miles, or 2400 Kilometers.

Food Policy – Food policy focuses on all aspects of the food system that impact our lives and our neighbourhoods..

Food Policy Council – An organized group of community members, business people, farmers, advocates, and other stakeholders in the food system. A food policy council can be connected to a city or local government body or it can be an independent group that works on issues related to food including: hunger, nutrition, food access, food stamps, and farmland preservation.

Food Security – Access by all people at all times to enough food for an active, healthy life. Food security includes at a minimum: 1) ready availability of nutritionally adequate and safe foods, and 2) an assured ability to acquire acceptable foods in socially acceptable ways. ()

Food System – A food system includes all processes involved in keeping us fed: growing, harvesting, processing, packaging, transporting, marketing, consuming and disposing of food. (FORC)

Permaculture – Combining the words permanent and agriculture, permaculture is a set of ethics and design principals based on caring for the earth, caring for people and redistributing surplus. Permaculture utilizes ecology as the basis for designing integrated systems of food production, housing, appropriate technology, and community development.

Pocket Garden – A garden on a small amount of land. Usually a showcase project.

Processing – The step in the food system that involves everything done to change food from its original form, such as, cutting, freezing, boiling, canning, etc. A food can be prepared in a variety of ways for a variety of uses. For example, a processing plant may receive apples to process into applesauce or apple juice.

Impervious surface – Constructed surfaces such as concrete or asphalt. Impervious surfaces inhibit water from infiltrating soil.

Social Capital - The pattern and intensity of networks among people and the shared values which arise from those networks. While definitions of social capital vary, the main aspects are citizenship, neighborliness, trust, community involvement, volunteering, social networks and civic participation.

Stormwater – Water that accumulates on land as a result of storms, and can include runoff from urban areas such as roads and roofs.

Sustainable Agriculture – Sustainable agriculture addresses the ecological, economic and social aspects of agriculture. It integrates three main goals: environmental stewardship, farm profitability, and prosperous farming communities. To be sustainable, agriculture can operate only when the environment, its caretakers and surrounding communities are healthy.

Urban Growth Boundary – A line drawn around a metropolitan area, designating the limits of allowable growth.

Urban Heat Island – A term used to describe the fact that city temperatures are often warmer than the surrounding region.

Vermiculture – The raising and production of earthworms and their by-products.

Viticulture – The cultivation of grapes and grape vines for producing wine.

Appendix B: Draft Community Garden Operational Guidelines for Land Other Than City Parks April 24, 2006

Definition:

The City of Vancouver recognizes community gardening as a valuable recreational activity that can contribute to community development, environmental awareness, positive social interaction and community education. The City recognizes that community garden development is a community driven process and will collaborate with interested groups in assisting the development of new community gardens.

For the purposes of these guidelines, a community garden is defined as a place where people grow and maintain plants on City-owned property as a community development and environmental enrichment initiative operated by a non-profit society. Residential boulevard gardens, Green Streets Program gardens and beautification projects are not included in this definition of community gardens.

Community gardens may exist in any area of the city and may be:

- A piece of public land used by a non-profit society to produce edible and ornamental plants for the personal use of society members and/or;
- A piece of public land used by a non-profit society to grow food products for their members' benefit through cooking programs or City approved economic development training opportunities;

featuring one or more of the following:

- A community development program which encourages the involvement of local schools, youth groups, senior citizens and others who do not have an assigned plot in gardening activities;
- An environmental enrichment program which offers demonstration activities to encourage urban agriculture outside of community gardens;
- Promotes an increase in environmental biodiversity and understanding of local food production;
- Contributes to growing food for charitable purposes;
- Represents the diversity of the community in which the community garden is located.

1. Clause One:

The City will support the development of community gardens in Vancouver by:

- (a) Providing access to information on the development and operation of community gardens;
- (b) Assisting interested groups in searching for suitable land for the development of community gardens;
- (c) Assisting with the development of a city-wide umbrella organization to support the creation of new gardens and provide support and networking opportunities for existing community gardens.

2. Clause Two:

Once a suitable City-owned site has been located for a community garden, the following conditions will apply:

- (a) The garden is developed and maintained at no cost to the City, except that prior to the first season, the City will, at its cost, prepare the site for planting by removing undesirable vegetation, adding compost and bringing water to the site;
- (b) A community consultation process, jointly undertaken by the non-profit society and the City, indicates neighbourhood support for the garden;
- (c) A garden site plan must be approved by City staff. The plan must include the layout of the plots and indicate any proposed structures or fences;
- (d) A non-profit society (the “Society”) agrees to develop and operate the garden according to a user’s agreement which will specify the terms of use, management responsibilities and access procedures including the following specific terms:
 - (i) The standard term of the user agreement will be 5 years unless the specific terms of use dictate otherwise or the Society has failed to demonstrate the ability to manage and maintain the garden;
 - (ii) Longer terms are warranted in circumstances deemed relevant or where the Society can demonstrate that the standard five year term would significantly restrict the Society’s ability to:
 - (1) Comply with City policies and direction;
 - (2) Conduct community outreach programming beyond the Society’s members;
 - (3) Implement a long term plan;
 - (4) Execute significant approved site improvements.
 - (iii) Allotments of space must be made from a waiting list on a first come, first served basis with preference to those with no garden plots elsewhere;
 - (iv) Membership in the garden’s Society and the opportunity to be allotted a plot must be open to any resident of Vancouver with preference given to residents of the neighbourhood in which the garden is located;
 - (v) Organic gardening and integrated pest management practices are to be followed. No synthetic pesticides or fertilizers are to be used;
 - (vi) Allotment fees charged by the society must be reported to the City;
 - (vii) The Society must adhere to maintenance standards set by the City;
 - (viii) No locked barriers to general public access to the site can be erected;
 - (ix) Garden practices shall comply with all City policies and by-laws.

Although located on public property with the prior approval of the City, community gardens are operated by volunteers from the community.

Appendix C: City of Vancouver 2010 Garden Challenge, May 30, 2006

2,010 Garden Plots by 2010 (VanRIMS No. 08-8000-01/08-3000-13)

B2 -MOTION ON NOTICE

MOVER: Councillor Ladner

SECONDER: Councillor

WHEREAS:

1. The City of Vancouver is committed to ensuring the most advanced sustainable Olympic Games to date in which meaningful, lasting legacies for Vancouver are created that relate to environmental stewardship, social responsibility and livability; and
2. in July 2003, City Council approved a Motion supporting the creation of a just and sustainable food system for the City of Vancouver; and
3. in December 2003, City Council approved a Food Action Plan which identifies urban agriculture as a priority area of focus for Vancouver; and
4. City Council approved the creation of the Vancouver Food Policy Council to provide ongoing advice and input to the City on food-related issues; and
5. there are approximately 900 garden plots located throughout the city, developed and operated by volunteers with the support of City and Parks Board staff; and
6. community gardens and other forms of urban agriculture are important neighbourhood gathering places that promote sustainability, neighbourhood livability, urban greening, community building, intergenerational activity, social interaction, crime reduction, exercise and food production; and
7. demand for community gardens and other forms of urban agriculture is greater than supply; and
8. City staff have proposed operational guidelines for community gardens to allow expansion of food production in a variety of formats and locations;

THEREFORE BE IT RESOLVED

THAT the City of Vancouver, with the Vancouver Food Policy Council as a key partner, work together with the Vancouver School Board, the Board of Parks and Recreation, community groups, neighbourhood organizations, non-profit groups, individual citizens and other interested parties to create 2,010 new food-producing garden plots in the city by January 1, 2010 as an Olympic legacy, and that the City of Vancouver challenge other municipalities in the GVRD to do the same.

Appendix D: Inventory Results: Listed by Rank for Potential: 5:high, 1:low

#	DEPT	ADDRESS*	NBHD*	Land Use	AREA SQ.M	CAT*	ZONE	Adjacent Use	ACCESS	DISTANCE TO OTHER UA SITE	EXISTING CONDITION	POTENTIAL USES	VISUAL RATING 1 (low) - 5 (high)	NOTES
1	PARKS	GARDEN DRIVE AND E 12TH AV	KCC	Is	N/A	SS, CG	RS-1	Greenway: Central Valley church,school, res	bikeway:Lakewood bus:Kingsway	3202 ft	landscaped, lawn	CG, Ed. L	5	identified by KCC
2	Nazarene REAL	WINDSOR ST AND E 19TH AV	KCC	Church	N/A	SS, IS	RM-1	l, res	bus:Kingsway	2498 ft	church, pkg. lot	orchard, market	5	identified by KCC
3	ESTATE? REAL	VICTORIA DRIVE AND HULL ST	KCC	E. Lot Empty	N/A	SS, CG	RS-1	res	bus? on bikeway:BC	1604 ft	empty lot, lawn empty lot,	CG	5	identified by KCC
4	ESTATE? REAL	3580 WALKER ST ARGYLE ST AND E 57TH AV	KCC	Lot	N/A	LS, CG	RS-1	school Greenway: North Arm	parkway, bus,	1065 ft	lawn,park?	CG	5	identified by KCC
5	ENG		V-F	Bulge	3195	LS, CG	RS-1			N/A	lawn, slope, view	CG	5	
6	ENG	3250 QUADRA ST NANAIMO ST	DS	Is	1250	LS, CG	RS-1	Greenway: Ridgeway	bikeway: Ridgeway	4006 ft	lawn	CG	5	Eng:recommended to designate as park and be locally adopted
7	ENG	AND CHARLES ST	G-W	Bulge	614	SS, CG	RS-1	res	bikeway: Lakewood	1.16 mi	lawn	CG	5	Eng: under-utilized potential
8	ENG	WALL ST AND N KASLO ST	HS	St.End	864	SS, CG	RS-1	park, res	on bikeway: Portside	4266 ft	lawn, trees (7), park	CG, orchard	5	Eng: programming required as large space identified by KCC, couldn't find access to it
9	ENG? School District	GLEN DRIVE AND E 21ST AV WINDSOR ST	KCC	Lane	N/A	SS, CG	RT-10	res	bikeway:Windsor bus, on bikeway: Windsor	2152 ft	lawn, blocked off? school, garden in part, lawn	CG, orchard CG, school garden	5	
10		AND E 23RD AV	KCC	School	N/A	SS, CG	RS-1	school park, Greenway:Arbutus	Bikeway:SW Marine bikeway:10th Av, bus:99 under skytrain, bikeway:BC Parkway	2579 ft		CG, school garden	5	
11	ENG	YEW ST AND SW MARINE DRIVE	KERR	Bulge	680	SS, CG	RS-1	butus		1778 ft	flower garden	CG	5	well cared for by resident, leave it alone
12	PW	125 E 10TH AV	MPT	BLDG	3,095	SS	RM-4	school, res	bikeway:10th Av, bus:99 under skytrain, bikeway:BC Parkway	1368 ft	wide sidewalk, flat roofs	raised beds, rooftop	5	CS, 1st choice of PW collingwood community garden is here, and
13	ENG	JOYCE ST AND VANNESS AV WORTHINGTON PLACE AND WORTHINGTON DRIVE	RC	Park	7800	LS, CG	RS-1	res	Parkway	1.47 mi	park, garden	CG	5	
14	ENG	QUEBEC ST AND E 27TH AV	RC	Is	390	SS, CG	RS-1	park, res	? bikeway:Ontario, bus on Main St.	1.27 mi	cul-de-sac, lawn	CG	5	Eng:boring, could be so much more
15	ENG	FRASER ST AND E 37TH AV	RP	St.End	344	SS, CG	RS-7	school	Greenway: Ridgeway on bikeway:Midtown-bikeway:Midtown/Ridgeway,Heather,	655 ft	mini-park, trees bike rte, lawn, pavement, public pkg, lawn, flat roofs	orchard, CG	5	
16	ENG		RP	Bulge	N/A	SS, CG	RT-2	Greenway: Ridgeway chinatown, greenway:do wntown res, park, Greenway: Seaside	bikeway:Midtown-bikeway:Midtown/Ridgeway,Heather,	3818 ft		CG, orchard, CG, rooftop, orchard	5	
17	PW	657 W 37TH AV	SC	BLDG	24,872	LS, CG	CD-1	chinatown, greenway:do wntown res, park, Greenway: Seaside	bikeway:TCT	N/A		CG, rooftop, orchard	5	
18	ENG	GORE AV AND KEEFER ST	STA	Bulge	5900	LS, CG	C-1	wntown res, park, Greenway: Seaside	bikeway:TCT	N/A	lawn, trees	CG	5	Eng: people pass through to chinatown
19	PW	LAT 49.27637/ LONG -123.14259	KTO	Park	16.8916 ha	LS, CG	RT-2	Greenway: Seaside	bikeway:Seaside bus	N/A	Vanier park, lots of lawn	CG, demo	5	

Appendix D: Inventory Results: Listed by Rank for Potential: 5:high, 1:low

#	DEPT	ADDRESS*	NBHD*	Land Use	AREA SQ.M	CAT*	ZONE	Adjacent Use	ACCESS	DISTANCE TO OTHER UA SITE	EXISTING CONDITION	POTENTIAL USES	VISUAL RATING		NOTES
													I (low) - 5 (high)		
20	ENG	WALLACE ST AND W 10TH AV	WPG	St.End	650	SS, CG	RS-1	res, park school, park,	bus	N/A	lawn	CG	5		bench, view
21	ENG	W 8TH AV AND W BROADWAY	WPG	Bulge	1550	LS, CG	RS-1	Greenway: Spirit Trail	bikeway: Off-Broadway, bus	N/A	lawn	CG, orchard	5		view
22	ENG	TRAFALGAR ST AND W 31ST AV	AR	Is	1200	LS	RS-5	school, res	?	2116 ft	grass, nice trees (6)	CG, orchard	4		park board land?
23	ENG	GRANVILLE ST AND W 4TH AV	FV	Bridge	8085	LS	RS-1	Island	bikeway: Off-Broadway, bus	2270 ft	park, lawn trees (56)	CG, demo	4		
24	ENG	GRANVILLE ST AND W 6TH AV	FV	Bridge	6985	LS	RS-1	Island	bikeway: Off-Broadway, bus,	2633 ft	park, lawn, trees (52)	CG, demo	4		
25	ND	1650 BURRARD ST	FV	BLDG Emp.	16,001	IS	C-2, M-2	Park	bikeway: Seaside	2344 ft	pkg lot, bldg	market, greenhouses, raised beds	4		
26	Reimar	WINDSOR ST AND E 29TH AV	KCC	Lot	N/A	SS, CG	RS-1	res	bikeway: Windsor on bikeway:	2498 ft	trees, lawn bike rte, lawn,	CG	4		
27	ENG	ROSS ST AND E 37TH AV	KCC	Bulge	N/A	SS	RS-1	Ridgeway	midtown-ridgway,	1436 ft	pavement, public	orchard	4		public art, bench some garden plots there, identified by KCC
28	City VAN Arch-bishop of	1406 E KING EDWARD AV	KCC	Emp. Lot	N/A	SS, CG	RM-NI	res, park	bus	1977 ft	garden, Park?	CG	4		
29	VAN	1612 E 18TH AV	KCC	Priv. Prop.	N/A	SS, IS	RT-10	res, school	bus	722 ft	church, Pkg lot, lawn	orchard, market, raised beds	4		identified by KCC
30	ENG	KERR ST AND RUPERT ST	KILL	Bulge	978	SS, CG	RS-1	Rupert Park	at bus stop	1 mi	huge cherry trees on side (5)	CG	4		
31	ENG	GRANVILLE ST AND W 59TH AV	MPO	Bulge	700	SS	RS-1	North Arm	bikeway: Cypress, bus 98	3570 ft	trees (6), shrubs	orchard	4		
32	PW	5255 HEATHER ST	SC	BLDG	14,000	SS, IS	CD-1	school	ridgeway; pkg. lot	N/A	landscaping	rooftop gardens, market	4		
33	RCMP	5201 HEATHER ST	SC	BLDG	1,502	CG	CD-1	school	pkg.lot	N/A	forensic lab, lawn,	market, CG	4		
34	ENG	GEORGIA VIADUCT AND	STA	Bridge	18000	LS, CG	M-1	park, res, greenway		N/A	park	CG	4		Eng: street people, leave alone
35	ENG	CLARENDON ST AND E 45TH AV	V-F	St.End	1178	LS, CG	RS-1	res, school?	on bikeway: ridgeway, bus stop at corner	N/A	trees, public art, landscapng	CG, orchard	4		Eng: boring/adds little to improve character
36	ENG	JASPER CRESCENT AND LEASIDE ST	V-F	Is	825	SS, CG	RS-1	res	bikeway: E. Kent	N/A	lawn	CG, orchard	4		
37	ENG	ARGYLE ST AND E 62ND AV	V-F	St.End, Is	670	SS, CG	RS-1	res	bikeway: E. Kent	N/A	cul-de-sac, lawn island, side trees	Ed.L, CG	4		noisy traffic on Argyle
38	ENG	NANAIMO ST AND HOYLAK	V-F	Is	880	SS, CG	RS-1	res	sports field, school, res	N/A	cul-de-sac	CG, orchard	4		Eng: local adoption from residents?
39	ENG	MUIRFIELD DRIVE AND SCARBORO AV	V-F	Is	1406	LS, CG	RS-1	school, res	bikeway: Sunrise; at bus stop, 29	N/A		CG, orchard	4		Eng: local adoption from res?
40	ENG	2205 BURQUITLAM DRIVE	V-F	Is	425	SS, CG	RS-1	res	bikeway: E. Kent	N/A	lawn, crossing sidewalks	CG, orchard	4		view of river, SITE IS ADJACENT TO THIS ADDRESS
41	ENG	YALE ST AND N KAMLOOPS ST	WLD	St.End	904	SS, CG	RS-1	res	bikeway: Portside	N/A	mini-park	CG	4		Eng: view, benches, sex trade

Appendix D: Inventory Results: Listed by Rank for Potential: 5:high, 1:low

#	DEPT	ADDRESS*	NBHD*	Land Use	AREA SQ.M	CAT*	ZONE	Adjacent Use	ACCESS	DISTANCE TO OTHER UA SITE	EXISTING CONDITION	POTENTIAL USES	VISUAL RATING 1 (low) - 5 (high)	NOTES
42	PW Real Estate	757 W HASTINGS ST	DT	BLDG	.628 ha	IS	CD-1	Greenway: city centre	bikeway:pender, skytrain, bus	N/A	flat roofs	rooftop gardens	3	
43	Estate	700 HAMILTON ST 2160		BLDG	1.1736 ha	IS	CD-1	Greenway:City Centre	skytrain, bus bikeway:BC Parkway, skytrain, bus	N/A	flat roofs	rooftop gardens	3	
44	Canada Post	COMMERCIAL DRIVE 9000	G-W	BLDG	.3083 ha	IS	RT-5	park		N/A	small lawn, flat roofs	raised beds, rooftops, Ed.L	3	
45	ENG	SHAUGHNESSY ST	MPO	St.End Priv.	350	SS	M-2		bikeway:Cypress bus,	N/A	pocket park	orchard	3	benches, view of river
46	N/A	675 E 18TH AV	RP	Prop.	N/A	SS, IS	RS-1	res	bikeway:Windsor	N/A	underused pkg lot	raised beds	3	
47	N/A	4371 PERRY ST	KCC	Lane	N/A	SS	RT-10	res	bus	N/A	lane, pathway	orchard, Ed.L	3	
48	ENG	1920 ARGYLE DRIVE	V-F	Median	1025	LS	RS-1	Greenway:N orth Arm, school?, res			barrier to residents on 56th	fruit trees	3	
49	N/A	VICTORIA DRIVE AND E 11TH AV CROWN	KCC	Bulge	N/A	SS,CG	RM-4	res school,	bikeway: 10th Ave, skytrain	N/A	grass	CG, orchard	3	
50	ENG	CRESCENT AND W 8TH AV PUGET DRIVE	WPG	Is	513	SS	RS-1	Greenway: Spirit Trail	bus,Bikeway:Off-Broadway	N/A	grass		3	map:nearest cross street
51	ENG	AND EDDINGTON BRUNSWICK ST	AR	Bulge	580	SS, CG	CD-1	school, res		N/A	small fruit trees (pear)	orchard, Ed.L	3	
52	ENG	AND GREAT NORTHERN WAY	MPT	Bulge	840	SS	IC-3	N/A	bikeway:BC Parkway	N/A	trees (3)	orchard	3	
53	ENG	BAYSWATER ST AND POINT GREY ROAD	KTO	St.End	198	SS	RS-2	res	bus, bikeway:seaside,	N/A	damaged pvmt	raised beds, Ed. L	3	Eng: inhospitable, hot, exposed. Dig up pvmt, plant drought tolerant shrubs
54	ENG	AND POINT GREY ROAD	KTO	St.End	2690	LS	RT-2	park,kits beach greenway: City Centre, beach	bus,bikeway:seaside	N/A	pocket park, lawn, trees (5) view	CG	3	
55	ENG	BURRARD ST AND PACIFIC ST	WE	Bridge	515	SS	FCCDD	beach	bikeway:seaside, bus on	N/A	lawn, trees	demonstration	3	Eng: prominent point in city, install public art
56	ENG	YALE ST AND N KAMLOOPS ST	HS	Is	900	SS, CG	RS-1	res	bikeway:Portside on	N/A	lawn, trees	CG	3	Eng: to be part of trans-canada trail?
57	ENG	YALE ST AND N RENFREW ST	HS	Is	306	SS, CG	RS-1	PNE, res	bikeway:portside	N/A	lawn	CG, farm stand	3	Eng:boring, view
58	ENG	KERR ST AND RUPERT ST	KILL	Bulge	390	SS, CG	RS-1	rupert park	bikeway:Ridgway	N/A	lawn, trees	CG	3	at Waverly Av
59	ENG	QUESNEL DRIVE AND VALDEZ ROAD	DS	Med	290	SS	RS-1	N/A	N/A	N/A	lawn, trees (3)	raised beds, orchard	2	
60	ENG	PUGET DRIVE AND ALAMEIN AV	DS	Is	178	SS	RS-1	school, res	N/A	N/A	lawn, 1 tree	fruit trees	2	

Appendix D: Inventory Results: Listed by Rank for Potential: 5:high, 1:low

#	DEPT	ADDRESS	NBHD	Land Use	AREA SQ.M	CAT*	ZONE	Adjacent Use	ACCESS	DISTANCE TO OTHER UA SITE	EXISTING CONDITION	POTENTIAL USES	VISUAL RATING 1 (low) - 5 (high)	NOTES
61	ENG	FRASER ST AND E 15TH AV	MPT	Is	800	SS	RS-1	Robson Park	bikeway:Windsor	N/A	trees (9) , flag poles	demo garden	2	might be a flower garden here-KCC note
62	ENG	CAMBIE ST AND W 6TH AV	MPT	Bridge	890	SS	FCCDD		bikeway:Off-Broadway at bus stop,	N/A	shrubs,bridge	demo garden	2	
63	ENG	KINGSWAY AND E 15TH AV	MPT	Is	443	SS	RS-1	Robson park	bikeway:Windsor	N/A	lawn	demo garden, farm stand	2	
64	ENG	RUPERT ST AND E 1ST AV	HS	Is	238	SS	RS-1	Rupert park		N/A	lawn	demo garden	2	
65	ENG	SOPHIA ST AND E 35TH AV	RP	Med	265	SS	RS-1	greenway: ridgeway	bikeway: midtown/ridgeway	N/A	lawn, trees (2)	fruit trees, Ed. L	2	
66	ENG	CLARK DRIVE AND KINGSWAY	KCC	Bulge	190	SS	C-2		bus	N/A	lawn	raised beds, ed	2	
67	ENG	VICTORIA DRIVE AND E 19TH AV	KCC	Bulge	650	SS	C-2	trout lake park	bus	N/A	lawn,trees (9)	orchard	2	
68	ENG	NOOTKA ST AND E 23RD AV	RC	Bulge	450	SS	RS-1	renfrew ravine park	bikeway:sunrise	N/A	lawn, trees (7)	demo garden	2	
69	ENG	BURRARD ST AND BEACH AV	WE	Bulge	375	SS, CG	RS-1	beach school, greenway: Central Valley	bus	N/A	lawn, under bridge	CG	2	view, beach, aquatic centre
70	PW	3625 LOUGHEED HIGHWAY	HS	BLDG	.45 ha	SS	I-2		pkg	N/A	industry	orchard, raised beds	2	CS*, industrial area, next to hwy, small lawn, 2nd choice by PW
71	N/A	3250 COMMERCIAL DRIVE	KCC	Priv. Prop	N/A	IS, SS	CD-1 (142)	res, park	bus, bikeway:bc parkway	N/A	Croatian comm ctr	raised beds, Ed. L	2	
72	N/A	4028 KNIGHT ST	KCC	Prop	N/A	IS	CD-1	res school, Arbutus	bus	N/A	empty pkg lot	market, raised beds	2	
73	ND	2025 W 11TH AV	KTO	BLDG	.37 ha	IS	C-7	Greenway	bikeway: 10th Ave, 2 blocks from 99	N/A	flat roofs, pkg lot	market, rooftop	2	*CS
74	ND	LAT 49.26712/ LONG -123.19097	WPG	BLDG	21.128 ha	IS	RS-1	res, park, school	bikeway	N/A	JERICHO MILITARY HEADQUARTER, surplus	market	2	CS
75	ND	LAT 49.29605/ LONG -123.12284	N/A	BLDG	3.52 ha	N/A	N/A	N/A	N/A	N/A	CANADIAN FORCES BASE	N/A	1	Couldn't find on map
76	COAST GUARD	Lat 49.27269/ LONG -123.11336	FV	N/A	.0405 ha	IS	RS-1	park, Greenway:se	bikeway: seaside, bus	N/A	FALSE CREEK SECTOR	N/A	1	
77	PORT	LAT 49.27178/ LONG -123.13882	Port	Port	1.38 HA	IS	N/A	N/A	N/A	N/A	FC FISHERMAN'S TERMINAL	N/A	1	Couldn't find on map
78	PORT	LAT 49.20358/ LONG -123.03697	Port	Port	71.2418 ha	LS, IS	N/A	N/A	N/A	N/A	NF Port Authority	port	1	Couldn't find on map
79	PORT	LAT 49.20957/ LONG -123.155	Port	Port	47.5022 ha	LS, IS	N/A	N/A	N/A	N/A	NF Port Authority	port	1	Couldn't find on map
80	PORT	LAT 49.28689/ - LONG 123.06603	Port	Port	1.004 ha	LS, IS	N/A	N/A	N/A	N/A	Port Authority	port-storage	1	Couldn't find on map