

# GROW

## Yellowknife Food and Agriculture Strategy

V3.0 Spring, 2019

*This strategy has been prepared for the City of Yellowknife by  
Urban Food Strategies*



CITY OF YELLOWKNIFE

URBAN FOOD  
STRATEGIES 



# Acknowledgements

The City of Yellowknife recognizes Chief Drygeese Territory, home and land of the Yellowknives Dene First Nation.

The City of Yellowknife wishes to acknowledge the many hours of volunteer time and commitment that has helped to create the conditions for developing GROW, the Yellowknife Food and Agriculture Strategy. Also, the City thanks those organizations and individuals who participated in the creation of GROW.

# Executive Summary

GROW is the short-form name for the Yellowknife Food and Agriculture Strategy, a long-range plan for increasing community and commercial opportunities in Yellowknife's urban food and agriculture system. Building on the vision and principles in the Yellowknife Food Charter (Please see Appendix A), the intention behind GROW is multifaceted and includes:

- Growing the local food economy,
- Growing connections to land, histories, culture and people,
- Growing the level of food security,
- Growing the amount of food that is grown, raised, hunted, fished, and foraged,
- Growing links to regional and territorial food and agriculture initiatives, programs, and funding.

GROW is a City of Yellowknife Strategy and primarily focuses on objectives and actions that are within the jurisdiction and mandate of the City and ones that the City can lead. In 2018, the City of Yellowknife initiated a process to engage the community, conduct research and analysis, and establish the policy and planning framework for increasing food and agriculture activities in the city. In addition to considering the economic, social, and environmental aspects of food and agriculture, GROW sets out a plan for how the City of Yellowknife can enable and support food and agriculture activities.

**Vision:** A just and sustainable food system in Yellowknife is rooted in a healthy community, where everyone has access to adequate and affordable nutritious food; more food is grown and harvested locally; and food production policies and infrastructure are in place to support an economically viable, diverse, and ecologically sustainable local food system

## **Goal 1: Support the sustainable growth of urban agriculture and related activities.**

Objective 1.1 Define and integrate urban agriculture into Yellowknife land use policies and bylaws.

Objective 1.2 Support sustainable growth of small livestock, bees, and insects in Yellowknife.

Objective 1.3: Increase opportunities for commercial greenhouses and enclosed growing systems.

## **Goal 2: Enhance access to urban agriculture basics**

Objective 2.1 Optimize water access.

Objective 2.2 Support access to soil and compost for food and agriculture.

Objective 2.3 Identify potential sites for future community/shared food and agriculture activities.

### **Goal 3: Support community learning opportunities around food and agriculture**

Objective 3.1: Create community gathering and learning opportunities.

Objective 3.2: Enable community led food and agriculture activities.

Objective 3.3: Integrate information on food and agriculture related events and activities to existing communications streams.

### **Goal 4: Encourage the growth of the Yellowknife food and agriculture economy.**

Objective 4.1: Encourage food and agriculture business development, food processing, and distribution capacity.

Objective 4.2: Integrate food, agriculture, fishing, and foraging into marketing and branding.

Objective 4.3: Support farmers' markets in public spaces.

### **Goal 5: Build internal capacity for successful implementation**

Objective 5.1 Encourage multi-stakeholder coordination on implementing GROW, linking to other initiatives, and monitoring progress over time.

Objective 5.2 Pursue grant funding in key areas for implementing GROW.

Objective 5.3 Advocate for sustainable, resilient, and restorative food and agriculture systems.

#### **How we got here**

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|---|----------------|
| 1. Community creates the Yellowknife Food Charter                 | 2015           |
| 2. City of Yellowknife endorses the Food Charter                  | 2015           |
| 3. Yellowknife Food and Agriculture Strategy process is initiated | Sept 2018      |
| 4. One-on-one interviews with key stakeholders are conducted      | Oct-Dec 2018   |
| 5. Stakeholder workshops on key issues and opportunities          | Oct 2018       |
| 6. Staff workshop on overall approaches for the strategy          | Oct 2018       |
| 7. Placespeak is used to identify food assets in Yellowknife      | Nov-Dec 2018   |
| 8. Opportunities Analysis is finalized and posted online          | Feb 2019       |
| 9. GROW Version 1.0 is produced                                   | Feb 18, 2019   |
| 10. Staff workshop on Version 1.0                                 | Feb 26, 2019   |
| 11. GROW Version 2.0 is produced                                  | March 15, 2019 |
| 12. Community Forum is held                                       | April 8, 2019  |
| 13. GROW Version 3.0  | April 26, 2019 |
| 14. Presentation to Governance & Priorities Committee             | May 6, 2019    |

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# 1. About this Strategy

## What is GROW?

GROW is the short-form name for the Yellowknife Food and Agriculture Strategy, a long-range plan for increasing community and commercial opportunities in Yellowknife's urban food and agriculture system. Building on the vision and principles in the Yellowknife Food Charter (Please see Appendix A), the intention behind GROW is multifaceted and includes:

- Growing the local food economy,
- Growing connections to land, histories, culture and people,
- Growing the level of food security,
- Growing the amount of food that is grown, raised, hunted, fished, and foraged,
- Growing links to regional and territorial food and agriculture initiatives, programs, and funding.

GROW is a City of Yellowknife Strategy and primarily focuses on objectives and actions that are within the jurisdiction and mandate of the City and ones that the City can lead. In some cases, areas where the City can support other sector's actions are included. Given that food and agriculture are cross-cutting areas with economic development, social planning, food security, health and healing, environmental restoration, and other areas, ideas that have emerged, but fall outside of local government jurisdiction are acknowledged, but do not form the official recommendations in this Strategy.

Although this Strategy focuses on the City's role and jurisdiction, it is recognized that many aspects of food and agriculture require a collaborative approach. The critical role that community organizations, business associations and economic development agencies, local commerce, educators, health and social service providers, schools, other levels of government, and community champions play in bringing meaning to and animating the vision of this Strategy cannot be over stated. Ongoing and growing collaboration between sectors will be supported through the City establishing a policy and program foundation for food and agriculture.

## Why GROW was Developed

With an increasing appreciation for growing your own food, many people in Yellowknife are keen to bring the many benefits of local food and agriculture to the community including reconnecting to land and people, increasing healthy food options and affordability, increasing self-reliance, decreasing reliance on oil and gas, and growing economic opportunities. There is a shared and core belief that there are significant opportunities in food and agriculture and the time is now to make investments towards achieving the vision of the food system put forward in the 2015 Food Charter. There is also a recognition that if food and agriculture community and commercial activities are to be successful and create these benefits, that multiple levels of government must work together in investing in a food secure future.

## Study Area

The study area for GROW is the municipal boundaries of the City of Yellowknife. The primary focus of GROW includes municipal policies, programs, bylaws and licensing that can impact food and urban agriculture. Lands both inside and outside of the City boundary that are regulated by other agencies and levels of government and are not covered by this Strategy. However, it is recognized these non-municipally regulated lands and the activities that occur there maintain a role and relationship to municipal lands.

## Purpose of GROW

The purpose of GROW is to provide the City of Yellowknife with a framework and recommendations for integrating urban food and agriculture into land use planning and bylaws, program development as well as licensing, communications, and administration systems.

## Project Process at a Glance

GROW is firmly rooted in the principles and vision outlined in the Yellowknife Food Charter that was developed by over fifty community organizations and endorsed by City Council in 2015. The increasing number of people engaging and interested in gardening/farming, raising small livestock, foraging, fishing and hunting, combined with the community desire and commitment to increase food security for all people in Yellowknife, and the interest of the City in enabling food and agriculture opportunities has provided a convergence of common interest around sustainable and resilient food and agriculture systems.

In 2018, The City of Yellowknife initiated a process to engage community, conduct research and analysis, and establish the policy and planning framework for increasing food and agriculture activities in the city. In addition to considering the economic, social, and environmental aspects of food and agriculture, GROW sets-out a 10-year plan for how the City of Yellowknife can enable and support food and agriculture activities.

In 2018, the City commissioned *Urban Food Strategies* to support the research, engagement, and strategy development process. The completion and adoption of GROW is anticipated for spring/summer 2019.



The process to create GROW began before 2015 as the community came together to develop the Food Charter. In the fall of 2018, the City launched this specific initiative to engage community in creating GROW. Key project activities and milestones are summarized below.

1. Community creates the Yellowknife Food Charter	2015
2. City of Yellowknife endorses the Food Charter	2015
3. Yellowknife Food and Agriculture Strategy process is initiated	Sept 2018
4. One-on-one interviews with key stakeholders are conducted	Oct-Dec 2018
5. Stakeholder workshops on key issues and opportunities are held	Oct 2018
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11. GROW Version 2.0 is produced	March 15, 2019
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13. GROW Version 3.0 is created	April 26, 2019
14. GROW is presented to the Governance & Priorities Committee	May 6, 2019

### Structure of this Strategy

GROW contains four main sections that presents a framework and recommendations for the City of Yellowknife. Section 1 provides the planning context and Section 2 presents the vision, guiding principles, and goals for the Strategy. Section 3 provides goal, objectives, and actions that form the main recommendations of the Strategy. Section 4 provides a preliminary action plan that presents actions in a phased plan with department roles identified. Appendices include A) Yellowknife Food Charter, B) Yellowknife piped-water service area, and C) Sample Urban Agriculture Design Guidelines.

## 2. Vision, Principles & Goals

<b>Vision:</b>	Description of a desired future state.
<b>Principles:</b>	Core values around food that will guide collective behaviour and decision-making.
<b>Goals:</b>	General directions.
<b>Objectives:</b>	Strategies within general directions.
<b>Actions:</b>	Specific and measurable ways to implement the strategy.

### GROW Vision

A just and sustainable food system in Yellowknife is rooted in a healthy community, where everyone has access to adequate and affordable nutritious food; more food is grown and harvested locally; and food production policies and infrastructure are in place to support an economically viable, diverse, and ecologically sustainable local food system.<sup>1</sup>

### Guiding Principles

A just and sustainable food system in Yellowknife means:

- The human right to safe and secure access to adequate food is honoured and everyone is food secure.
- Everyone has access to knowledge about a just and sustainable food system.
- Equitable, healthy relationships exist among all people in the food system.
- Food based entrepreneurial initiatives are essential to sustainable local economies.
- The benefits of local food based economic development are celebrated and leveraged.
- Food producers, harvesters, and entrepreneurs generate value from their work and use ecologically sustainable practices.
- Indigenous and traditional practices are respected and supported.
- Community members have confidence in the quality, safety, supply, and distribution of food.
- Public policy and infrastructure reflect these principles of a just and sustainable food system.
- Improved access to nutritious foods leading to better health outcomes.

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<sup>1</sup> This vision and principles are drawn directly from the Yellowknife Food Charter that was developed by the Yellowknife Farmers Market and endorsed by Council in 2015. The Charter has provided the foundation for the Food and Urban Agriculture Strategy.

## GROW Goals

GROW's five goals draw from key directions identified through the *Opportunities Analysis*<sup>2</sup> as well as staff input. Goals have been developed with City jurisdiction and functional operating areas in mind.



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<sup>2</sup> The *Food and Agriculture Opportunities Analysis* (2019), is a companion background document to this Strategy and can be accessed on-line at: [https://www.yellowknife.ca/en/discovering-yellowknife/resources/Foodies/Agriculture-Strategy/DRAFT-AGRICULTURE-STRATEGY-OPPORTUNITIES-ANALYSISFEBRUARY\\_18\\_2019.pdf](https://www.yellowknife.ca/en/discovering-yellowknife/resources/Foodies/Agriculture-Strategy/DRAFT-AGRICULTURE-STRATEGY-OPPORTUNITIES-ANALYSISFEBRUARY_18_2019.pdf)

# 3. Goals, Objectives, & Actions

This section presents the goals, objectives, actions and implementation considerations for GROW. Each of the five goals contains a set of objectives that each contain actions. The goal areas focus on key implementation functions of the City. For example, all land use planning policy and bylaw recommendations are contained in *Goal 1 Support the sustainable growth of urban agriculture and related activities*.

Key information and rationale for each objective is provided and drawn from the research, engagement, and analysis conducted through developing the *Opportunities Analysis*. Within each action there are several implementation considerations that recommend specific ways to accomplish the action but leave some flexibility for the City to also use other strategies for implementing an action and objective. The implementation considerations are intended to provide guidance and directions on how to implement the action, while also providing flexibility and permeability for new approaches to emerge.

Each goal area is organized as follows:

**Goal: *General directions towards vision***

**Objective: *Strategies to achieve general directions, or goals***

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Brief description of key rationale, stakeholder input, and background information.

**Action: *Specific activity linked to the objective***

A) Implementation considerations- Recommendations and considerations for implementing the above action. Intended to provide structure and flexibility in next steps and implementing the plan.

The overall approach in GROW is to provide a path for the City to first enable and balance food and urban agriculture activities, and then build on existing community knowledge and experience to develop further capacity to meet the goals and vision of this Strategy. Future iterations of this Strategy may build on this foundation to determine new directions.

### **Goal 1: Support the sustainable growth of urban agriculture and related activities.**

Growing and raising food in urban areas has been an enduring trend in Canadian towns and cities. Along with the many social, economic, and environmental benefits food and agriculture can bring, these activities can introduce conflicts such as noise, dust, and smell. In this way, communities benefit from proactive regulatory approaches that foster the smooth integration and functioning of food and agriculture in the city. Goal 1 is focused on establishing food and urban agriculture in the City's policy, bylaw, and regulatory framework in order to support the sustainable growth of urban agriculture and related activities in Yellowknife.

Of note, with any updates to existing or creation of new bylaws, further public consultation will be triggered and will create future opportunities for community input on the details. For example, determining whether or not to limit the number of hens permitted within the town boundary will be part of a planning process that will involve public consultation and engagement and will result in bylaw updates. GROW provides general policy direction and intent, as well as potential implementation steps for developing further detail for each of the bylaws impacted. The sample design guidelines and standards samples provided in Appendix C offer a starting point for developing this type of bylaw-level detail.

#### **Objective 1.1 Define and integrate urban agriculture into Yellowknife land use policies and bylaws.**

Although there are many people growing their own food and there are a growing number of local food businesses in Yellowknife, the City has historically not planned or regulated for urban agricultural land uses such as urban livestock and commercial greenhouses. Like many other municipalities in Canada, and for this reason, there is no definition of what urban agriculture is and is not from a land use policy, planning and regulatory perspective. Given the growing interest in urban agriculture both from a commercial and community perspective, as well as alignment with City Council goals and objectives, creating and implementing a definition of urban agriculture will support clarity and further integration of urban agriculture into the City's policy, bylaw and regulatory framework. Community input emphasized the importance of considering a wholistic, systems approach to urban agriculture that includes food security, wholistic healing, and restorative practices.

*Action 1.1.1: Develop and adopt a definition of urban agriculture that may be used in land use planning, policy and bylaw.*

A) Consider the following definition that builds on a wholistic, systems perspective of food and agriculture:

*Urban agriculture is the commercial or community growing, raising, sharing, and sales of a diversity of plants and small animals within the boundaries of the City of Yellowknife.*

- a) Commercial food and agriculture activities include any for-profit business, including greenhouses, fish processing/selling, and raising small livestock to create products and/or services for sale.*
- b) Community food and agriculture includes any individual, family, school, hospital, garden organization who is growing and raising food for shared and/or personal use and/or sharing with community food and health programs.*
- c) Small animals include hens, ducks, quail, rabbits, goats and pigs as well as bees and insects.*
- d) Urban agriculture is limited by other bylaws and common-sense standards including definitions for cannabis and greenhouse in the zoning bylaw as well as limiting activities that are likely to cause conflict such as, commercial livestock operations, mushroom barns, commercial compost creation.*

*Caveat: Successful urban agriculture depends on support systems including water, nutrients, and light as well as small-scale storage, processing, and distribution infrastructure complimented by a wide-range of community-based programs for increasing food access, security, healing, restoration, and learning opportunities.*

B) Consider developing and integrating supportive definitions such as: farmers market, commercial greenhouse (include nursery), enclosed growing system, community garden, and fish sales, among others.

*Action 1.1.2: Update Zoning Bylaw #4404 (or future bylaw) to permit urban agriculture.*

- A) Permit community agriculture in all appropriate zones (e.g. residential, commercial, institutional, and parks)
- B) Permit commercial agriculture in select zones (e.g. industrial and commercial zones)
- C) Integrate design guidelines (Please see design guidelines A-D in the following section) into zoning by-law, where appropriate.

*Action 1.1.3: Update the Yellowknife Community Plan to include food and urban agriculture.*

- A) Integrate food and agriculture into overall community vision and principles.
- B) Integrate a goal/objective around supporting sustainable food and agriculture systems.
- C) Include definition of urban agriculture.
- D) Use the sample design guidelines in Appendix C to update appropriate sections of the Community Plan.
- E) Refer to GROW for specific objectives and actions.
- F) Refer to the Yellowknife Food Charter.

*Action 1.1.4 Incentivize food and agriculture businesses.*

- A) Update Tax Administration Bylaw (#4207) to reduce taxes/fees for commercial agriculture businesses. (e.g. set minimum tax threshold e.g. if you make more than \$2500 net revenue from selling farm/lake/forest products, you can qualify for a discount on property tax if you register/license the business.)
- B) Consider how the Land Administration Bylaw (#4596) can help to encourage food and agriculture business through land disposal and concessions for land tenure decisions.
- C) Leverage programs and funding from other levels of government and other sectors.
- D) Review Business License Bylaw (#3451) to determine if any provisions/ incentives could be developed for food and agriculture business. Consider reviewing/updating the Business License Bylaw to require a no-cost business license for selling product from private property.
- E) Research other business incentives for agriculture and how they could be implemented in conjunction with the Development Incentive Bylaw (#4534).

*Action 1.1.5 Consider inclusion of food and agriculture considerations in new development.*

The new construction of residential, commercial, or industrial projects creates an opportunity to integrate food and agriculture into the built environment. For example, garden beds, farmers market plazas, and shared kitchen spaces are all food assets that can be designed into early project phases.

- A) Develop and integrate Neighbourhood Food and Agriculture Design Guidelines to create and/or add to current development standards. (Please see Appendix C, Part D for a sample).
- B) Consider updating applicable Bylaws to include food and agriculture. considerations such as shared or allotment gardening areas, community kitchens, outdoor eating areas.

Objective 1.2 Support sustainable growth of small livestock, bees, and insects in Yellowknife

There are many benefits to urban livestock and bees in Yellowknife including providing a protein source and providing manure to create soil. Urban livestock, bees, and insects can also cause challenges and conflicts such as noise, dust, smell, and disease. For this reason, many municipalities take a double-pronged approach of a) regulating activities to support the safe and respectful integration into neighbourhoods and commercial areas and b) helping to educate and build capacity for best practices.

Given the growing interest in home, school, community gardening as well as small scale commercial production, hen-keeping, and bee keeping in Yellowknife, it is anticipated that this trend will continue. To support the integration and proactive management of food and agriculture activities in Yellowknife, sample guidelines based on best practices from other Canadian municipalities are provided in Appendix C.

*Action 1.2.1: Permit small livestock in Yellowknife.*

- A) Allow small livestock in select zones (e.g. residential).
- B) Develop a new Animal Control By-law to include small livestock.
- C) Develop and adopt Small Livestock Shelter Design Guidelines included in Animal Control By-law to regulate number of animals, size and location shelters, and other best practice and animal ethics considerations. (Please see Appendix C, Part A for a sample).

*Action 1.2.2: Permit bee and insect keeping in Yellowknife.*

- A) Allow bees and insects in select zones (e.g. residential, commercial, etc.).
- B) Develop and adopt Bee Keeping Design Guidelines to regulate number and location of hives. (Please see Appendix C, Part B for a sample)
- C) Develop a new animal control bylaw that integrates the existing Dog By-law (#4755) and expands to include bees and insects.
- D) Consider allowing community or educational bee keeping in nature preserve areas where appropriate.

*Action 1.2.3: Monitor and track the number, type, and location of small livestock and bees.*

- A) Engage residents on possible establishment of a registration/licensing system for small livestock, bees, and insects (number, type, location).
- B) Develop a no- to low-cost, low-barrier permit process to inventory urban livestock activities annually in order to track number, type, and location of small livestock operations as well as potentially establish a maximum number of permits.



*Action 1.2.4: Collaborate with community organizations to build capacity around urban agriculture including livestock.*

- A) Work with community organizations to provide skill building workshops and information around topics such as bee and hen keeping 101 to support best practices in animal ethics and care, proper construction of shelters, optimal siting and location of shelters, and troubleshooting, among many other special topics.
- B) Consider providing and/or contracting a local expert to provide facilitation and instruction.

**Objective 1.3: Increase opportunities for commercial greenhouses and enclosed growing systems**

Commercial greenhouses and enclosed growing systems are key food production opportunities in Yellowknife as they can a) significantly extend the growing season and amount of food produced and b) do not rely on natural soil for productivity, using raised beds or soil alternatives (e.g. hydroponics). There are existing commercial greenhouses in Yellowknife that provide garden supplies and nursery plants including edible plants, among other products. There are also commercial operations testing enclosed growing system technologies, adapting them for the north with an intention of rolling them out to remote communities in the Northwest Territories. Currently, commercial greenhouses are only allowed in the Business Industrial zone.

*Action 1.3.1: Expand areas where commercial greenhouses and enclosed growing systems are permitted.*

- A) Update Zoning Bylaw (#4404, or future bylaw) to permit commercial greenhouses and enclosed growing systems in select zones (e.g. industrial, some commercial).
- B) Develop and integrate Commercial Greenhouse and Enclosed Growing System Design Guidelines to regulate location and size of structures. (Please see Appendix C, Part C). Consider integrating guidelines into the zoning and building bylaws.
- C) Permit greenhouses and enclosed growing systems in both areas serviced and not serviced with municipal water. As with other sectors, business may locate in areas with trucked water at a cost borne by the property owner.

*Action 1.3.2: Update Business License Bylaw (#3451) and licencing process to include commercial food and agriculture including commercial greenhouse and enclosed growing system businesses.*

- A) Consider developing a step-by-step guide for how to license commercial food and agriculture.

*Action 1.3.3 Continue to support personal greenhouses.*

- A) Exempt residential personal greenhouses from commercial greenhouse regulations, licensing, and requirements.
- B) Establish guidelines for maximum size of personal greenhouses e.g. 100 sq ft.

## Goal 2: Enhance access to urban agriculture basics

Growing and raising food in Yellowknife is micro- to small-scale, in direct relationship to the land base and parcel size. In order to get the most out of small spaces, the basics for growing and raising food including water, soil and nutrients, and land must be optimized. The history and challenges associated with arsenic contamination due to resource extraction limits opportunities to hunt, forage, and grow food in and around Yellowknife. Finding ways to restore land as well as safely manage food crops is central to Goal 2. Goal 2 also provides recommendations for how the City can enhance access to these basics through leveraging existing assets.

### Objective 2.1 Optimize water access

The City of Yellowknife owns and operates its own water utility. Drawing from the Yellowknife River, municipal water is provided in the central areas of Yellowknife (Please see Appendix B, City Water Servicing Area). However, many areas of Yellowknife do not have piped-in municipal water and rely on trucked-in water and on-site storage tanks.

#### *Action 2.1.1 Where possible, provide water for community and school gardens.*

- A) Consider strategies to provide water to community agriculture activities that are outside of the piped servicing area.
- B) Continue to provide water hook-ups within the piped servicing area.

#### *Action 2.1.2 Encourage rainwater collection for home use, especially in areas outside of the piped water service area.*

- A) Consider developing a rain barrel program.

#### *Action 2.1.3 Advocate for the establishment of a water subsidy that will support commercial and community agricultural viability in Yellowknife, especially in areas outside of the piped water service area.*

- A) Consider applying for long-term funding to provide a water subsidy for food and agriculture businesses.
- B) Consider establishing a water demand model that projects water requirements and identifies opportunities for food and agriculture business to reduce water needs as well as access water in a way that supports business viability.

Objective 2.2 Support access to soil and compost for food and agriculture.

Natural soils that provide the depth and quality suitable for food production are very limited in Yellowknife. As a result, the best way to optimize food production is through raised beds and/or non-soil-based alternatives (e.g. hydroponic). There are several local sources of soil and amendments including the Ecology North and City's organic composting program that provides compost for sale as well as local garden centres who sell soil and soil amendments, in addition to garden supplies. Stakeholders noted that purchasing soil and soil amendments annually for raised bed gardens can become expensive and potentially cost prohibitive for some community members.

*Action 2.2.1 Provide soil and compost for community gardens.*

- A) Support community garden organizations in setting up on-site composting for garden waste.
- B) Further assess needs and ways to make soil more easily accessible from a cost and transportation perspective.

*Action 2.2.2 Promote city composting program and how to access compost.*

- A) Continue to host seasonal compost sales and consider ways of reducing line-ups and wait times.
- B) Consider ways to increase access to soil for all residents. For example, a 'soil angel' program akin to the successful 'snow angel' program could be a model. This could be supported through on-line matching programs that pair people that have extra space and materials with those who are looking for growing space and materials.
- C) As demand for compost increases ensure Centralized Composting Program is able to meet demand.
- D) Consider strategies for using by-products from the fishing industry to create soil amendments for food gardens.

*Action 2.2.3 Help urban gardeners and farmers to use appropriate natural soils in community/home gardening and commercial food and agriculture.*

- A) Consider working with local labs to help create an easy-to-read soil test result.
- B) Consider partnering on and/or promoting workshops on helping people to interpret soil test results as well as how to restore low-quality and/or contaminated soils.
- C) Build on the existing Giant Mines Health Effect Monitoring program<sup>3</sup> to address soil testing needs of the community.

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<sup>3</sup> <http://www.ykhemp.ca>

**Objective 2.3 Identify potential sites for future community/shared food and agriculture activities.**

Community gardens provide many benefits to communities: They provide an important gathering and learning space, they produce fresh foods and recreation opportunities for people of all ages, genders, ethnicities, and backgrounds, and they provide sanctuary and visual interest in public spaces, among many other benefits. The number of Yellowknife urban farmers and gardeners has been growing steadily since community groups, schools, and Indigenous groups have constructed gardens and launched garden programs. Community gardens and urban farms are flexible, and with raised beds, can be installed anywhere. Many stakeholders identified a need to ensure that community gardening is inclusive and engages people from all backgrounds.

It is anticipated that the interest and engagement in urban agriculture will continue to grow. Planning ahead to determine if and where suitable urban farm and community garden sites could be located will help the City to work with the community in establishing new community gardens as demand and utilization increases.

*Action 2.3.1 Assess potential community garden sites for future expansion.*

- A) Identify policy and objective areas in the Community Plan for creation of gardens.
- B) Set criteria for identifying locations for potential community garden locations including:
  - a. Walkable access by residents
  - b. Water availability
  - c. Visual impact
  - d. Focus in areas with social housing
- C) Work with local organizations to assess and project utilization and demand for community garden space annually.
- D) Consider a range of shared garden types including but not limited to greenhouse, raised beds, orchards, demonstration gardens, and social-enterprise projects.
- E) Consider strategies to engage end-users in the process to identify and develop any new shared gardens/ edible landscapes.

*Action 2.3.2: Support any future exploration of and opportunities for establishing a community greenhouse.*

- A) Collaborate with existing gardeners and garden organizations to explore the interest in and feasibility of a community greenhouse/ enterprise incubator.
- B) Working with community organizations, consider how to target an inclusive cross-section of people living in Yellowknife.
- C) Working with social housing organizations, consider community garden and greenhouse locations in or near to social housing projects.
- D) Consider waste-heat and co-location opportunities for any future community greenhouse initiatives.

*Action 2.3.3 Work with local fishing industry to review current status and determine any local government strategies that would help the industry to better access local markets and customers.*

- A) Consider working with partners to strengthen local value chain for Great Slave Lake fish products.
- B) Engage stakeholders to determine if there are any actions that the City of Yellowknife can take to support the success of the fishing sector.

*Action 2.3.4 Expand edible landscaping on city owned land including parks and streets.*

- A) Test soil in city-owned public parks and based on results develop and expand existing edible landscaping program.
- B) Count and map edible plants in public spaces as a way to encourage stewardship and community engagement.
- C) Consider connections to Indigenous plants and practices in plant selection and signage.

### Goal 3: Support community learning opportunities around food and agriculture

Food and agriculture are excellent learning tools that can break-down many barriers of a traditional classroom environment. Learning about growing, harvesting, fishing, foraging, preserving, and preparing healthy affordable foods, can be enjoyable, even spiritual, and an important part of enabling healthy food choices and food culture. Learning and skill-building around food, agriculture, hunting, fishing, and foraging were identified by stakeholders as a key goal area for GROW. There are many existing community programs, workshops, and events designed to build community, food skills, food literacy, gardening skills, and fishing and hunting skills, among others. Although creating community learning opportunities is not necessarily a primary role for local government, the City can assist in other ways such as programs, policy and regulatory changes-and integrating information about Indigenous food systems into public spaces.

#### Objective 3.1: Create community gathering and learning opportunities.

The City does and can continue to play an important supportive role in providing community gathering and learning opportunities. Learning spaces can be both indoor and outdoor, formal to informal. Especially in areas that support the policy and regulatory changes in GROW, the City may offer education directly in order to increase awareness and/or best practice with residents and businesses. A key theme within stakeholder feedback is that in order for hands-on gardening programs to have the most positive impact and uptake possible, the program must engage the end-user in program development and considering what wrap-around services are required for long-term success.

#### *Action 3.1.1: Launch an annual speaker series and contract local experts to provide community workshops in a range of food and agriculture topics.*

- A) Promote agriculture-related events offered by organizations such as Industry Tourism and Investment (GNWT), Ecology North, or others.
- B) Consider topics such as: Overwintering your worms, container and backyard gardening, how to create soil, Indigenous food and healing plants and practices, northern hardy perennials, bee keeping, hen keeping, hunting, foraging, and fishing, and arsenic 'need to know' workshops, among others.
- C) Consider partnerships with Northern Farm Training Institute in Hay River to help develop food and agriculture educational programs.

*Action 3.1.2: Support community food and agriculture education and skill-building activities.*

- A) Continue to make existing City meeting rooms available to community groups through the City Booking system.
- B) Continue to inventory and communicate existing indoor and outdoor classroom spaces that are available to rent throughout Yellowknife.
- C) Support initiatives that provide an opportunity for local experts to help teach food and garden skills.

*Action 3.1.3: Work with local experts to create a collaborative learning program and learning opportunities around indigenous food and healing plants and practices.*

- A) Consider a public space signage program that provides a cultural and biological description of the many plants and animals that provide food and healing as well as the rituals and practices of harvesting food.
- B) Consider a raised bed demonstration garden that showcases different types of food and healing plants that grow in Yellowknife.
- C) Consider applying programs to public parks, plazas, and streets, where appropriate.

**Objective 3.2: Enable community led food and agriculture activities.**

Given the level of interest and enthusiasm around urban agriculture within the community, there is great opportunity to create community-focused programs to enable community-led food and agriculture activities. This approach has been successful in other municipalities and has resulted in an increase in urban agriculture activities.

*Action 3.2.1: Encourage planting on streets, boulevards, and rights-of-way.*

- A) Allow residents and businesses to plant planters and hanging baskets, adopt a garden, or otherwise garden in appropriate areas of streets, boulevards, and rights-of-way.
- B) Consider establishing guidelines to follow in order to ensure safety (e.g. no structures or tall plants that could limit visibility or universal accessibility).
- C) Provide promotional and educational information in print and on-line formats to raise awareness and engage resident and businesses in the program.

*Action 3.2.2: Within the existing City of Yellowknife Community Grant Program, allocate a percentage of the fund to be used for food and agriculture activities.*

- A) Consider small highly visible projects that engage a wide-range of community members.



Objective 3.3: Integrate information on food and agriculture related events and activities to existing communications streams.

The City of Yellowknife already provides print, on-line, and in-person communication on a wide-range of City topics. Integrating information on food and urban agriculture into this existing communication system is a key way the City can become a go-to resource for information on the many food and urban agriculture assets, programs, and events in Yellowknife.

*Action 3.3.1: Include food and agriculture into existing communications systems.*

- A) Promote the Food Charter, GROW, and other relevant resources on the website, in print material, and in-person.
- B) Hold a workshop with front-desk staff to familiarize them with any new changes to development permits, business licensing, FAQs on urban agriculture, and where to direct inquiries.
- C) Update community profile regularly to showcase food and agriculture activities, people, and businesses.

*Action 3.3.2 Develop and share a food and agriculture Frequently Asked Questions sheet.*

- A) Consider questions such as where can I grow food now? Did you know you can sell backyard produce at the Farmers Market Harvester's table?

#### **Goal 4: Encourage the growth of the Yellowknife food and agriculture economy.**

The average household in Yellowknife spends \$10,456 per year on food, \$1,800 more than the average Canadian.<sup>4</sup> Redirecting a portion of household spending on local foods could generate significant local value and increase overall affordability of and access to local foods. Local studies have indicated the market potential behind both supply and demand for local foods.<sup>5,6</sup> Food and agriculture tourism also is an economic generator and local job creator.

Like most communities, the vast majority of food in Yellowknife comes from other areas of the country and world. The money spent on food mostly leaves the community, the cost of food is a food security issue, and the carbon impacts of long-range travel are a challenge. However, locally owned and operated food and agriculture businesses, including fisheries, can increase the multiplier effect, whereby money that is spent locally circulates and is re-spent several times, adding value to other businesses. This can help to increase the overall resiliency of Yellowknife's economy.

##### **Objective 4.1: Encourage food and agriculture business development, food processing, and distribution capacity.**

In order for commercial food and agriculture businesses, including fisheries, to grow and in addition to actions recommended in Objective 1.1. and 1.2, the City can collaborate and participate in increasing capacity for commercial development. This requires considering how to establish networks, value chains, and physical infrastructure to support new businesses in developing and testing products, packaging, marketing and branding, complying with health regulations, and engaging buyers and the community at large. Although the City is one of many entities that could be involved with Objective 4.1, other roles for the City could include acting as a convener, facilitator, and capacity builder.

##### **Action 4.1.1: Support and participate in exploring the viability of a Yellowknife commercial food incubator and community food hub.**

- A) Consider multiple functions such as commercial kitchen space, product development support, storage, wholesale and retail, food testing area, shared equipment storage (e.g. honey extractor), office space, and meeting space, among others.
- B) Consider ownership, operations, and management systems required to support functions such as: selecting a site, governance and ownership structures, sustainable business models, revenue streams, facilities, equipment, management systems.
- C) Ensure that shared-use facilities are recognized in business licensing.

<sup>4</sup> NWT Bureau of Statistics (2015). Accessed Feb 15, 2019: [https://www.statsnwt.ca/prices-expenditures/household\\_expenditures/](https://www.statsnwt.ca/prices-expenditures/household_expenditures/)

<sup>5</sup> Ecology North (2012). Stimulating Commercial Berry Production in the NWT Capital Region.

<sup>6</sup> Government of Northwest Territories (2017). The Business of Food; Food Production Strategy 2017-2022

*Action 4.1.2: Allow farm gate sales from private properties.*

- A) Update Zoning Bylaw (#4404 or future bylaw) to permit small farmgate stands in residential zones.
- B) Establish farmgate construction standards to ensure appropriate size and location.
- C) Promote program through web, social, and print media.
- D) Consider a no-cost business license for sales of food from private property.

*Objective 4.2: Integrate food, agriculture, fishing, and foraging into marketing and branding.*

Made-foraged-grown-raised- fished in Yellowknife foods hold great community identity potential and, in-turn, marketing and branding content. Like countless areas of the world, visitors and residents are attracted to a place because of its food culture and experiences. With the unique attribute of being a northern community and already having a 70,000 tourists per year visiting, integrating made in Yellowknife foods and activities could expand market opportunities for local commerce and business.

*Action 4.2.1: Expand Yellowknife brand environment to include a community “Made in Yellowknife” wordmark that may be used by businesses or community members in online or print material (including labels).*

- A) Consider an on-line downloadable wordmark with usage guidelines and templates
- B) Consider a community logo creation competition for the Made in Yellowknife community brand.

*Action 4.2.2 Work with tourism departments and organizations as well as local business associations to share information and promote local businesses as well as community organizations, events and programs.*

- A) Create a directory of local food and agriculture events, community programs, businesses, tours, workshops, and outfitters.
- B) Update community calendar of with City-led activities and events as well as promoted non-City events and activities, where appropriate.
- C) Help to promote Yellowknife businesses, including food and agriculture.
- D) Update City of Yellowknife economic development strategy to include a food and agriculture development lens.
- E) Consider developing an agri-tourism strategy in order to attract and sustain tourism investment in food and agriculture sectors.

Objective 4.3: Support farmers' markets in public spaces

Farmers markets are a business incubator and create a lively gathering place for residents and visitors. The plazas and other outdoor spaces they operate in are multi-purpose and are also suitable for a wide-range of other community activities. Stakeholders acknowledged that developing community and market-organizer strategies to make the market more accessible to more people in Yellowknife would add-value to the market. For example, many people commented that having a more frequent market is desirable and finding ways to engage people of all backgrounds is important. Although market operations are within the sphere of market organizers, the City could continue to support the market through lease administration and signage.

*Action 4.3.1: Assess strategies to reduce fees and charges for farmers markets.*

A) Engage market organizers in developing strategies to reduce fees and charges.

*Action 4.3.2 Include Yellowknife Farmers Market in street signage and Wayfinding Strategy.*

- A) Consider including hours and months of operation as well as location.
- B) Work with farmers' market organizers to create a story of the farmers market in Yellowknife to include in signs and/or web, print material.

### **Goal 5: Build internal capacity for successful implementation**

Goals 1- 4 have presented recommendations in both new areas as well as integration into existing City policies, bylaws and operations. In order to successfully implement GROW recommendations, coordinating and building capacity in key areas will enable the City and community to work together in achieving the vision for food and agriculture in Yellowknife.

*Objective 5.1 Encourage multi-stakeholder coordination on implementing GROW, linking to other initiatives, and monitoring progress over time.*

Given that food and agriculture, including fisheries, involves many sectors including community, business, institutional, First Nation, and several areas of government, achieving the vision for food and agriculture in Yellowknife will require broad engagement with multiple actors within each of these sectors. There are also emerging NWT networks that could participate and help to link activities in Yellowknife to those of the rest of the territory.

*Action 5.1.1: Work with local, regional, and territorial organizations to share information and updates on food and agriculture activities.*

- A) Participate in existing working groups and committees, as appropriate.
- B) Consider providing written updates on how implementation of GROW is going, where the City needs support, successes, and lessons learned.
- C) Consider other initiatives underway and where the City could add-value or play a role. Also consider where these initiatives intersect with GROW.
- D) Consider both internal and external engagement and participation in food and agriculture planning and implementation.
- E) Meet with groups such as Business Development Investment Corporation, Yellowknife Chamber of Commerce and Le Conseil de Développement économique des Territoires du Nord-Ouest (CDÉTNO) to extend and enhance support services to agriculture and agriculture related businesses in Yellowknife (e.g. one-on-one business training, market research)

*Action 5.1.2: Develop a monitoring and evaluation framework to assess implementation progress AND impact assessment of GROW.*

- A) After policy and bylaw recommendations in GROW have been developed and adopted, bring forward an implementation plan that will re-evaluate priorities and take next steps in achieving the vision, goals, and objectives of the Strategy.
- B) Consider both:
  - a. Evaluating the implementation of GROW (e.g. what actions have been completed, in action, not yet started, under review) and
  - b. Assessing the impact that these actions are having (e.g. number of food and agriculture business licenses, number of people participating in urban agriculture, number of farmers market vendors and shoppers, number of people who have increased access to food assets).
- C) Focus evaluation metrics in areas where data is already being collected and is accessible (e.g. business licenses, development permits)
- D) Identify data collection/availability gaps.

*Objective 5.2 Pursue grant funding in key areas for implementing GROW.*

Throughout this Strategy, there are key areas to develop resources in. The investment in developing these resources will enable the City to meet goals and objectives, proactively address the emerging community and commercial opportunities in food and agriculture and help to build overall capacity in Yellowknife food and agriculture systems.

The Government of the Northwest Territories (GNWT) announced 5.6 million in funding for food and agriculture. Industry Tourism and Investment (ITI) is also currently supporting small enterprise development in the food and agriculture sector. There are likely many other funding sources that would include local government eligibility.

*Action 5.2.1: Seek multi-year funding to establish a part-time Food and Agriculture coordinator role.*

- A) Consider budgeting for food and agriculture operating and program expenses through this position.
- B) Create a job description and define the roles and responsibilities of this position.

*Action 5.2.2: Seek major project funding in key areas.*

- A) Evaluate priorities and determine if and where any major project funding is required.
- B) Explore GNWT funding sources as well as foundation and federal grants.
- C) Consider pursuing awards such as the Arctic Inspiration Prize that comes with significant dollars.

Objective 5.3 Advocate for sustainable, resilient, and restorative food and agriculture systems.

Despite the multiple ways local governments and communities can influence change in the local food system, there are many aspects to sustainable, resilient, and restorative food and agriculture systems that are outside of the jurisdiction of local government. An important way that local governments and other organizations can address these topics is through identifying common ground and creating an advocacy position around a key issue. This position can then be used to engage with partners and help to shift overall conditions.

*Action 5.3.1: Identify any areas outside local government jurisdiction, that if addressed, would enable the City and community to achieve the vision and goals of GROW.*

- A) Consider exploring topics such as: working with other levels of government to better regulate and create opportunities for local food and agriculture businesses, identifying links and common objectives between Yellowknife and other communities in the NWT, support with data and monitoring of local food and agriculture system, including food security, among others.
- B) Consider pursuing a water subsidy program with GNWT.


## 4. Preliminary Action Plan

This section proposes a four-part preliminary action plan for implementing GROW. The action plan identifies lead and support roles for City of Yellowknife Departments. This action plan is presented to support creating a shared agreement to and understanding of how the City will coordinate the implementation of GROW. Once Council adopts GROW, City Staff will further develop a detailed costing, phasing and implementation plan for GROW.

### City of Yellowknife Departments and GROW Implementation Units

- Community Services (ComS)
- Corporate Services (CorS)
- Policy, Communications and Economic Development (PCED)
- Planning and Development (P&D)
- Public Safety (PS)
- Public Works and Engineering (PW&E)

Lead and support roles for City departments are indicated with the following symbols:

 = Lead

 = Support

### Implementation Phases

- Phase 1: (2019-2021)- Can include initial steps for long-term projects, quick starts where the City is ready to begin implementation.
- Phase 2: (2019- 2025)- Activities that may or may not start this year but take up to five years
- Phase 3: (2019-2029)- Activities that may or may not start this year and take up to ten years.
- Ongoing- Activities that are ongoing and not time-limited.



	ComS	CorS	PCED	P&D	PS	PW&E
<b>PHASE 1 2019-2021</b>						
<i>Action 1.1.1: Develop and adopt a definition of urban agriculture that may be used in land use planning, policy and bylaw.</i>			◆	●		
<i>Action 1.1.2: Update the Zoning Bylaw #4404 (or future bylaw) to permit urban agriculture.</i>			◆	●		
<i>Action 1.1.3 Update Community Plan to include food and urban agriculture.</i>			◆	●		
<i>Action 1.2.1: Permit small livestock in Yellowknife.</i>			◆	●		
<i>Action 1.2.2: Permit bee and insect keeping in Yellowknife.</i>			◆	●		
<i>Action 1.3.1: Expand areas where commercial greenhouses and enclosed growing systems are permitted.</i>			◆	●		
<i>Action 1.3.2: Update business license Bylaw #3451 and licencing process to include commercial food and agriculture including greenhouse and enclosed growing system businesses.</i>		◆	●			
<i>Action 1.3.3 Continue to support personal greenhouses.</i>				●		
<i>Action 2.1.2 Encourage rainwater collection for home use, especially in areas without municipal water servicing.</i>	◆		◆			●
<i>Action 2.3.4 Expand edible landscaping on city owned land including parks and streets</i>	●				◆	
<i>Action 3.2.2: Within the existing City of Yellowknife Community Grant Program, allocate a percentage of the fund to be used for food and agriculture activities.</i>	●					

	ComS	CorS	PCED	P&D	PS	PW&E
<i>Action 3.3.2 Develop and share a food and agriculture Frequently Asked Questions sheet.</i>			●			
<i>Action 4.1.1: Participate in exploring the viability of a Yellowknife commercial food incubator and community food hub.</i>			●			
<i>Action 4.1.2 Allow farm gate sales from private properties.</i>				●		
<i>Action 4.1.3 Establish business licenses and clear licensing process for commercial agriculture.</i>		●	◆			
<i>Action 5.1.1: Work with local, regional, and territorial organizations to share information and updates on food and agriculture activities.</i>			●			
<i>Action 5.2.1: Seek multi-year funding to establish a part-time Food and Agriculture coordinator role.</i>			●			
<i>Action 5.2.2: Seek major project funding in key areas.</i>			●			
<i>Action 5.2.3 Seek funding to establish a food and agriculture neighbourhood small grant program.</i>			●			
<b>PHASE 2 (2019-2025)</b>						
<i>Action 1.1.4 Incentivize new food and agriculture businesses.</i>			●			
<i>Action 1.1.5 Update Building Bylaw # 4469 to include food and urban agriculture considerations.</i>				●		
<i>Action 1.2.3: Monitor and track the number, type, and location of small livestock and bees.</i>			●			

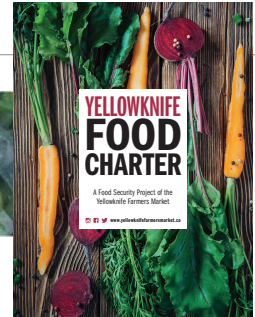
	ComS	CorS	PCED	P&D	PS	PW&E
<i>Action 1.2.4: Collaborate with community organizations to build capacity around urban agriculture including livestock.</i>	●					
<i>Action 2.1.3 Advocate for the establishment of a water subsidy that will support commercial and community agricultural viability in Yellowknife, especially in areas outside of the piped water service area.</i>			●			
<i>Action 2.2.3 Help urban gardeners and farmers to use appropriate natural soils in community/home gardening and commercial food and agriculture.</i>		●		●		
<i>Action 2.3.1 Assess potential community garden sites for future expansion.</i>			●			
<i>Action 2.3.2: Explore interest in and opportunities for establishing a community greenhouse.</i>			●			◆
<i>Action 2.3.3: Work with local fishing industry to review current processing and sales facilities and determine any local government strategies that would help the industry to access local markets and customers</i>			●			
<i>Action 3.1.1: Launch an annual speaker series and contract local experts to provide community workshops in a range of food and agriculture topics.</i>			●			
<i>Action 3.1.3 Work with local experts to create a collaborative learning program and learning opportunities around indigenous food and healing plants and practices.</i>			●			

	ComS	CorS	PCED	P&D	PS	PW&E
<i>Action 4.2.1: Expand Yellowknife brand environment to include a community “Made in Yellowknife” wordmark that may be used by businesses or community members in online or print material (including labels).</i>			●			
<i>Action 4.3.2 Include Yellowknife farmers market in street signage and wayfinding.</i>			◆			●
<i>Action 5.1.2: Develop a monitoring and evaluation framework to assess implementation progress AND impact assessment of GROW.</i>	◆		●			
<b>PHASE 3 (2019-2029)</b>						
<i>Action 4.3.1: Assess strategies to reduce fees and charges for farmers markets.</i>	◆		◆			●
<b>ONGOING</b>						
<i>Action 2.1.1 Where possible, provide water for community and school gardens.</i>		◆				●
<i>Action 2.2.1 Provide soil and compost for community gardens.</i>		◆				●
<i>Action 2.2.2 Promote city composting program and how to access compost.</i>			●			
<i>Action 3.1.2 Support community food and agriculture education and skill-building activities.</i>			●			
<i>Action 3.3.1: Include food and agriculture into existing communications systems.</i>			●			
<i>Action 4.2.2 Work with tourism departments and organizations as well as local business associations to share information and promote local businesses as well as community organizations, events and programs.</i>			●			

	ComS	CorS	PCED	P&D	PS	PW&E
<i>Action 5.3.1: Identify any areas outside local government jurisdiction, that if addressed, would enable the City and community to achieve the vision and goals of GROW.</i>	◆	◆	●	◆		◆

# 5. Appendices

## Appendix A: Yellowknife Food Charter



The **Yellowknife Food Charter** reflects a common desire to achieve a just and sustainable food system. The Charter provides a vision and principles that will guide and inform all levels of government, businesses, non-government organizations, families, and individuals in mutual planning and practice toward food security and a healthy, sustainable community.

### Current Situation

Yellowknife's food system has strengths and weaknesses. Our community has a vibrant network of food producers and community members and organizations committed to social and environmental justice. To some degree, everyone in Yellowknife is reliant on imported foods in part, due to limited local infrastructure to support agricultural and harvesting activities. Too many Yellowknifers do not have secure access to adequate healthy food. Food insecurity is heightened by:

- An increasingly global economy that moves control of agricultural and harvesting activities away from local individuals and groups.
- Growing income inequality.
- Food that people can't afford.
- Environmental degradation associated with climate change that is threatening our food supply.
- A loss in food growing, harvesting, and processing knowledge and skills.
- Poor health outcomes directly linked to diet.

The Yellowknife Food Charter is testimony to community members and our neighbours throughout the NWT of our desire to respect this basic human right and of our willingness to collectively and constructively work toward a just and sustainable food system.

### Vision

A just and sustainable food system in Yellowknife is rooted in a healthy community, where everyone has access to adequate and affordable nutritious food; more food is grown and harvested locally; and food production policies and infrastructure are in place to support an economically viable, diverse, and ecologically sustainable local food system.

### Principles

A just and sustainable food system in Yellowknife means:

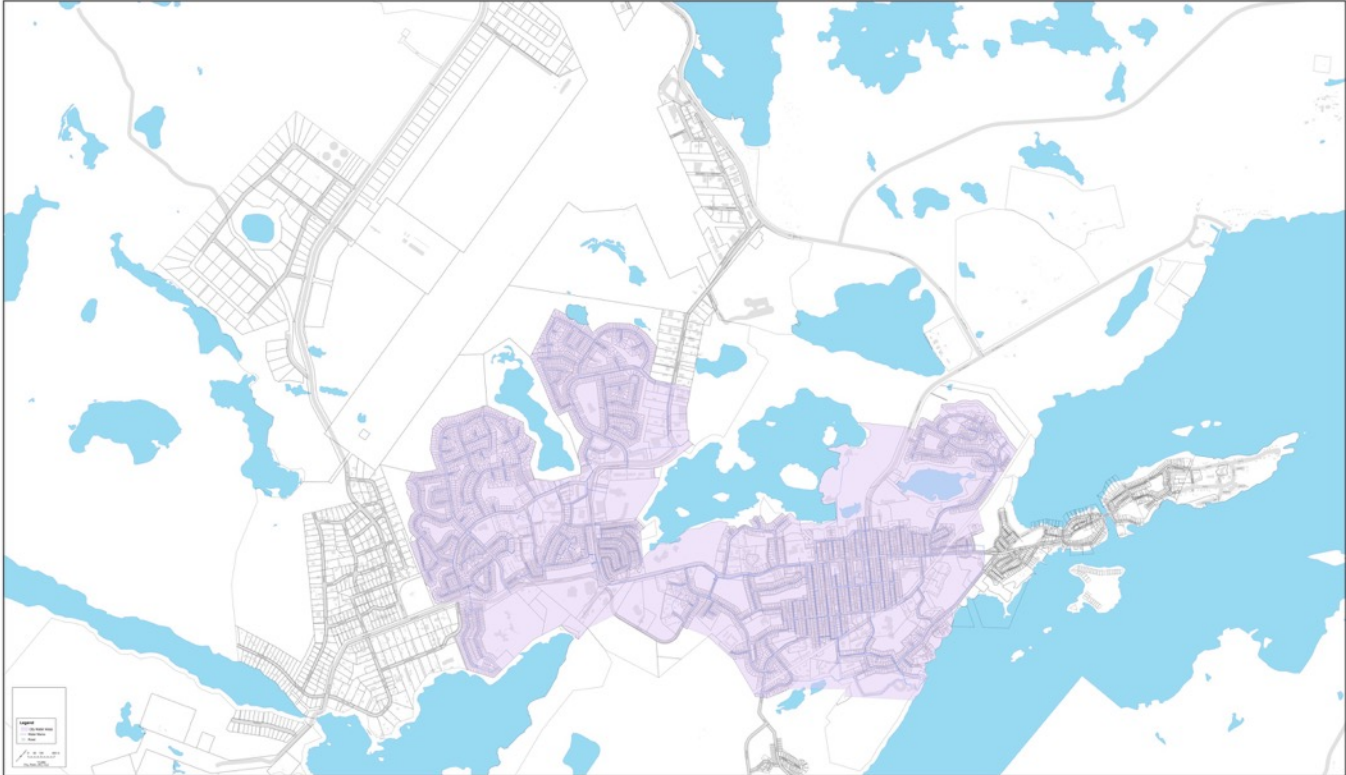
- The human right to safe and secure access to adequate food is honoured and everyone is food secure.
- Everyone has access to knowledge about a just and sustainable food system.
- Equitable, healthy relationships exist among all people in the food system.
- Food based entrepreneurial initiatives are essential to sustainable local economies.
- The benefits of local food based economic development are celebrated and leveraged.
- Food producers, harvesters, and entrepreneurs generate value from their work and use ecologically sustainable practices.
- Indigenous and traditional practices are respected and supported.
- Community members have confidence in the quality, safety, supply, and distribution of food.
- Public policy and infrastructure reflect these principles of a just and sustainable food system.
- Improved access to nutritious foods leading to better health outcomes.

We, therefore, declare our commitment and intent to work in partnership towards achieving a just and sustainable food system in Yellowknife. We recognize that this commitment has real implications for our policies and practices. Our willingness to make this commitment indicates our sense of collective and personal responsibility for the present and future ecological, economic, and social well-being of our community.

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**Appendix B: City of Yellowknife Water Servicing Area**





## Appendix C: Sample Urban Agriculture Guidelines and Standards

### Overview

The objectives and actions outlined in the above section link to the Urban Agriculture Design Guidelines and Standards presented in this section. These are offered as a starting point and framework and may be modified based on community and City interpretation. This content is draft and for consideration and draws from Canadian examples. Notes in *grey italic font* are provided to help understand and interpret the guidelines and standards presented.

### *Options for where the design guidelines could be housed*

- Design Guidelines within the Agricultural Strategy (in the document)
- Included in a Zoning By-law Amendment: as Part 7: Development Standards (given the City chooses to amend zoning and allow urban agriculture within all zones or as an accessory use within some zones)
- Included in the Updated Community Plan (given there is a section for urban agriculture)
- New bylaws (e.g. Bee-Keeping By-law, Animal Licensing and Control By-law)

*Note: Most municipalities amend their zoning bylaw to define and permit urban agriculture and/or specific activities then create new bylaws, where needed (i.e. animal control by-law, bee-keeping by-law, etc.), with a requirement for permits, licensing or registration. Additionally, guidelines are provided to further assist residents and City staff in reviewing, assessing, setting up and monitoring Urban Agriculture projects. Guidelines can be paired with standard typologies for each section.*

### *Application and Intent*

The urban agriculture guidelines and standards outline design criteria to:

- Manage land use conflict;
- Provide guidance for applicants or City Staff in preparing or reviewing newly proposed urban agricultural projects, and;
- Ensure urban agriculture opportunities are provided within new sub-division and development.

The applicability of the guidelines may vary depending on bio-physical site characteristics and land use, however, all activities should generally conform to these guidelines.

Design guidelines target the following, as they apply to new urban agricultural projects on public lands for community projects, private land, and new developments:

#### A) Small livestock, including:

- chicken (e.g. chicken coops, number of hens, etc.)
- goats & pigs (e.g. housing, run areas, processing)

#### B) Bee-keeping (e.g. number of hives, etc.)

C) Private/personal greenhouses or commercial/community greenhouses or enclosed growing systems

D) Community or resident use of public parks and greenspaces for urban agriculture:

- community gardens
- edible landscaping

As well as food production within all zones and in particular, vacant lots, farm gate sales, and urban farming for commercial purposes.

The provision of the features described in these guidelines should be compatible with other objectives for greenspace requirements, common outdoor amenity spaces and general landscaping.

*Note: Each section of the following guidelines outline 'recommended content'. This content outlines basic considerations for the urban agriculture activities listed. More detailed requirements should be considered, where needed, and to address specific conditions within the City of Yellowknife. In addition, some of the recommended content would be better included in the zoning bylaw amendments or other stand-alone bylaws and not as guidelines. This is for further discussion.*

#### *Additional considerations for the application of guidelines and standards*

- Implement a low cost/low barrier permitting process or accessible online registration (e.g. hive registration) to track and monitor activities
- Require specific certification within the guidelines, or bylaws or partner with outside organizations to offer courses (e.g. bee-keeping course, livestock certificate) recommended within the guidelines
- Provide for monitoring and/or enforcement of guidelines

## A) Small Livestock Shelter Design Guidelines

The Small Livestock Shelter Design Guidelines apply to the keeping of livestock for personal and small-scale commercial or community use. These guidelines provide information on basic elements to assist with assessment of projects, ensure proper care of animals and to reduce conflict with surrounding properties.

*Note: recommendations are based on a review of precedents found in other similar size municipalities and include a range (where differences were found) for consideration.*

- **Minimum lot size requirements for livestock**
  - dairy goats & pigs – 630m<sup>2</sup> – 1,011m<sup>2</sup> (0.25 acre)
  - poultry & rabbits – 335m<sup>2</sup>
- **Number of animals permitted**
  - 3 breeding meat rabbits (2 does and 1 male) + litters
  - 8-12 hens, no roosters
  - 2-5 dairy goats (dwarf), only neutered male goats permitted (if used as a companion for a dairy goat)
  - 2-5 pigs (small)

*Note: this is a general estimate, but can be further detailed based on actual typical lot sizes within Yellowknife. It can also be expressed as a ratio of land area to animal units. In some cases, if thought to be an issue, some municipalities also limit the number of household pets if keeping livestock as well.*

- no greater than 25% of the lot area is dedicated to urban agriculture activities (in sum).

*Note: 25% is a common limit imposed within other municipalities in North America. However, there have been critiques that this limit could be based on the type of activities, rather than a standard percentage (for example, could a resident keep 4 hens and have a large garden area on their property that in total, is greater than 25% of their lot?).*

- **Lot siting, size and set back**
  - animals (housing and runs) should be located in the rear lot
  - sited on a flat, well drained site
  - animal shelters should not be located adjacent to any natural watercourse
  - setbacks from neighbouring properties and primary building:
    - dairy goats & pigs – 8m setback from neighbouring properties
    - poultry & rabbits – 1m setback from neighbouring properties

- height of the shelter – 1.8m *or equivalent to the maximum height of fencing allowable*
  - an animal shelter should ideally be located to protect animals from wind, weather and predators, and reduce nuisance to neighbours (see best practices)

• **Minimum space and housing requirements:**

Animal (per animal)	Dairy Goat	Pig	Poultry	Rabbits (for meat)
<b>Enclosed Housing Area</b>	20-25 sq.ft.	48 sq.ft.	3-4sq.ft. (coop)	6 sq.ft.
<b>Exercise Yard</b>	50sq.ft.	200sq.ft.	10 sq.ft.	30 sq.ft.
<b>Ideal Pasture Area</b>	0.1-0.3 acres	1 acre	n/a	n/a
<b>Type of Housing</b>	Enclosed, with windows	Enclosed, with windows	Enclosed, with enclosed run (4ft high)	Enclosed hutch with sleeping box
<b>Fencing</b>	Electric, woven wire	Electric, plank rail	Chicken wire	Small mesh
<b>Family Needs</b>	2-3 goats, females, or neutered male for companion	2 pigs	4-8 hens, no roosters	2 does, 1 buck for breeding (~5 litters per year)

• **Shelter requirements (chart or table by animal with images or diagram):**

- Building: the building should be a fully enclosed, solid, roofed shelter with insulation and natural light to protect the animals from weather, providing cool areas in summer and warmth in winter, and protection from predators. Flooring should be compact earth or concrete with bedding material to reduce smell and provide comfort. Good access for cleaning is required.
- Air quality: Animal shelters should be open, providing natural ventilation, or enclosed, using fans and proper air inlets around the ceiling perimeter to provide good air circulation. Tight buildings result in a buildup of respiration gases, and animal odors, which can irritate the animal’s lungs and cause pneumonia. Dangerous ammonia levels can also build up and lead to poor and dangerous conditions for animals and caretakers.

- Drafts & Supplemental Heating: Animals can stand cold temperatures, but you should protect them from drafts. Constructing panels in front of an open building can reduce drafts. Consider drafts at animal height, not person height. In cold temperatures, supplemental heating should be provided and included within the built structure.
- Dry bedding area: Animals will be far more comfortable in the cold if they have clean, dry bedding. A thick, dry bed provides insulation from the cold ground and decreases the amount of energy the animal has to expend to keep warm. Shelter from the snow and rain allows an animal's coat to remain dry, which provides maximum insulating value.
- Sanitary Feed and Water Stations: All animals need water to survive and clean stations should be incorporated within a shelter. Under cold conditions, use freeze-proof watering devices. Animals will drink more when water is 10°C.
- Adequate Food: Animals can endure severe cold temperatures if they eat enough food (energy) to maintain their energy reserves (body fat). Animals need energy for growth and maintenance. Extra energy is expended to keep warm. Therefore, they will require additional amounts of good quality feed during cold weather.
- **Site accessibility, parking and loading**
  - animal shelter and exercise areas should be secure, yet accessible for regular maintenance and required materials (feed, animals, etc.) to be transported in/out of the shelter area
  - where on site sales of animal products occur (where permitted), a minimum of 1 parking stall or availability of on-street parking be required

*Note: on-site sales could be permitted within residential, urban farms; where this is the case, guidelines or requirements for parking and access should be considered.*

- **Waste management (compost, materials, visual, smell)**
  - see best practices
  - regular maintenance is required
  - tools, feed and other materials that support livestock should be neatly kept in an indoor and/or outdoor storage areas
- **Number and siting of accessory buildings, storage areas, planting areas related to livestock**
  - number of additional out buildings as indicated in zoning (for storage)
- **Additional best practices**

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- requirement for appropriate training and registration for keeping of livestock
- minimize levels of odour, noise and artificial lighting
- regular site maintenance is required
- design attractive animal shelters and/or reduce animal shelter and site visibility with landscaping
- store feed and materials in secure and enclosed out-buildings or boxes to reduce attractants to wildlife

## B) Bee Keeping Design Guidelines

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Guidelines are to provide guidance for the keeping of hives in urban residential areas.

- **Number of hives per lot**
  - urban, non-commercial backyard beekeepers are restricted to two hives per lot area that is less than, or equals to 930m<sup>2</sup>
  - a registered/licensed urban bee-keeping business may include 4-6 hives, where the lot size is greater than 930m<sup>2</sup> and is considered a small urban agriculture business, or manage 2 hives per lot on multiple lots (that are less than or equal to 930m<sup>2</sup>)
  - a community garden or hives for educational use in public or community space is restricted to two hives per lot

*Note: additional rooftop hives could be permitted in smaller lot sizes. Most municipalities reviewed limit bee-keepers to 2 hives on a property. However, if the City would like to support small urban agriculture business – additional hives would be required to support production and sales.*

- **Lot siting and setback**
  - hives should be directed away from neighbouring properties
  - hives should be located at the rear lot or rooftop, a minimum of 3 to 6m from the property line and primary building (unless it is located on the rooftop or there is a solid fence separating the property and hives)
  - entrance to the beehive should be located 1.8m above the adjacent ground level
  - ensure there is a solid fence or vegetative obstruction at least 1.5m tall between the front of the hive and the property line
  - be particularly mindful of children or children's play areas and pedestrian pathways or seating areas when placing hives
  - consider keeping the hive inconspicuous so as to minimize the hive's visibility to curious visitors and vandals
- **Additional best practices**
  - all bee-keepers should have appropriate training
  - all bee-keeping should follow best practices for:
    - health of the bees
    - disease control and pest management
    - considerate hive management
    - swarm prevention or aggressive behaviour
  - public bee hives should have a sign that includes the contact information of the bee-keeper in charge of the area

*Note: Nearly all municipalities reviewed have a bee-keeping bylaw and/or guidelines with a permit process and requirement for resident certification in bee-keeping.*



### C) Commercial Greenhouse and Enclosed Growing Systems Guidelines

The objective of these guidelines is to provide guidance on the planning, design, construction and operation of commercial greenhouse and enclosed growing systems in urban areas.

- **Zoning & permitted structures:**

- personal use greenhouses under 10m<sup>2</sup> are permitted in all zones and do not require a development or building permit unless additional servicing infrastructure is required
- commercial enclosed growing systems over 10m<sup>2</sup> permitted in all zones or a limited number of zones.

*Note: engaging current greenhouse or enclosed system operators on guidelines for business and best practices is recommended; only basic content for guidelines are included here, to be refined and added to, aligned with specific City requirements and needs.*

- **Minimum lot size**

- personal use greenhouses – permitted on all lots
- minimum lot size for commercial and enclosed growing system – 930m<sup>2</sup>
- square lots are preferable to long, narrow lots

*Note: minimum lot size is a general estimate and based on an estimated space required to operate a smaller urban greenhouse business. It would be important to revise this minimum lot requirement based on lot sizes and zoning within the City of Yellowknife more specifically.*

- **Siting, size and setback**

- personal greenhouses and enclosed growing systems should be located on the rear lot
- locate the greenhouse(s) and enclosed systems on a level site, and for larger operations, with a concrete slab or footing
- locate to maximize available light for growing while minimizing overheating -
  - orient the main glazing wall to the south, orient to true solar south provides the best available light for northern climate greenhouses
  - the optimum angle for the south facing glazing wall should allow the sun to enter the greenhouse at a right angle on the coldest day
- where possible, avoid a direct line of sight with adjacent developments and roadways
- organize and locate multiple greenhouses and growing systems in a regular pattern on the lot
- for optimal greenhouse conditions, the length (east-to-west) should be twice as long as the width

- greenhouses and enclosed growing systems should be located at minimum 6m from the property line on all sides
- greenhouses and enclosed growing systems should not exceed the maximum height outlined within the zoning of the property

*Note: enclosed systems may need further review and safety restrictions for the type of building used (for example, shipping containers)*

- **Site accessibility, parking and loading**
  - require adequate parking and loading areas, including those for employees, customers (where there is on-site sales) and distribution and/or shipping of products from the site
- **Energy efficiency**
  - insulate walls or roof areas that are not glazed or in enclosed systems
  - have at least some heat storage capacity and a way to move air around inside (and out of) the greenhouse
  - use R-40 insulation in the walls and roof, R-15 to below the frost
  - supplement insulation with heat storage in the greenhouse to release at cooler times
    - use 4 gallons of water or 0.5 cubic feet of rocks per square foot of floor
    - containers of water or block walls should be painted dark blue or red to maximize heat absorption while still reflecting some useful growing light to plants
    - interior north wall and ceiling should be painted white to maximize reflection within the greenhouse
    - use translucent glazing like polycarbonate or woven poly
  - build an insulated wall 3 to 4 feet high below the glazing allows for building growing beds inside and prevents snow from piling up on the outside of the glazing
  - include a vestibule at the entrance to minimize heat loss
- **Number and siting of buildings, storage areas, planting areas**
  - all outdoor storage areas should be tidy and organized
  - planted areas should be landscaped and maintained
- **Levels of odour, noise or artificial lighting**
  - minimize any odours and noise
  - use low wattage, LED lights for supplemental lighting and shut off the lights for night time hours

- **Best practices**

- utilize best management practices for pest management
- exercise regular maintenance and clean out annually

*Note: the type of crops grown, may also require additional restrictions or regulation. Most municipalities do not have specific design guidelines for greenhouses and enclosed systems in urban areas.*

## D) Neighbourhood Food & Urban Agriculture Guidelines

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These guidelines provide direction for new developments, smaller urban agricultural projects (urban farms, restaurant patio spaces, etc.) within urban areas and projects or landscaping within community/public spaces. Guidelines are focused on:

- shared garden plots (at grade or on rooftops)
- edible landscaping
- common outdoor amenity spaces within new development of multi-family, and offices, schools or community centres
- minimum lot size or percentage of area to permit type/scale of activity
  - urban gardening is permitted on all lots and rooftops
  - where a consolidated common outdoor amenity space is provided within new multi-family projects, garden plots should be provided for 30% of the residential units that do not have access to private outdoor space of more than 9m<sup>2</sup>

Guidelines could be expanded to include the full urban agriculture typology presented in the *Opportunities Analysis*.

*Note: consideration for urban farms is required (for example: temporary community gardens, vacant lots, etc.). Rooftop gardening may require additional consideration or permit process for structural requirements.*

- **Lot siting, size and setbacks**
  - plots should be located to maximize sunlight access and provide good accessibility for regular maintenance
  - plots located on rooftops should be located in wind screened areas and minimize negative impact to surrounding views and building heights
  - where appropriate, co-locate garden areas with:
    - a covered outdoor space
    - an outdoor children's play area
    - an indoor amenity room with kitchen, washroom and an eating area
    - an outdoor seating area for rest and social interaction
    - transit stops/access and/or bike racks or pedestrian pathways
  - garden areas should be located away from vehicle traffic
  - garden areas should be a minimum of 2m<sup>2</sup> (ideally 3 feet by 8 feet)

- **Site accessibility, parking and loading**
  - garden plots should have direct access to loading areas and/or via elevator from loading areas at grade to garden plots located on a roof, in order to provide easy access for maintenance and materials
  - where possible, at minimum, two garden plots should consider universal accessibility features to accommodate wheelchairs, strollers and senior gardeners who have mobility challenges within public/community gardens and within multi-family developments
- **Garden plot design and support facilities**
  - ideal garden plot design is a maximum reach of 18 inches from the perimeter to the middle of the plot
  - where contamination is a concern, raised beds should be used
  - soil depth should be a minimum of 18 inches and should be made up of soil appropriate for growing a variety of food plants, preferably native to the area
  - where at grade plots are used, soil should be tested for toxins prior to being used as garden plots
  - height of garden planters should be a maximum of 2 feet for easy reaching into planter beds
  - for roof-top garden plots, protection of the roof membrane and soil drainage issues should be taken into consideration
  - rainwater capture and use for watering is encouraged
  - additional facilities to support gardening should be provided, including:
    - water access and hose bibs within 20 feet of any garden plot
    - storage room for tools and/or shed with a potting bench
    - an electrical outlet
    - area lighting
    - a greenhouse for extending the growing season, of minimum 9 x 12 feet
- **Waste management (compost, materials, visual, smell)**
  - a composting facility that is rodent-resistant, provides the ability to turn compost, and is of sufficient size to match garden capacity
  - pesticide and herbicide use is not permitted
- **Edible landscaping can be incorporated as part of public landscaped areas**
  - edible landscaping, the use of ornamental plants that also produce edible fruits, nuts, etc., is encouraged in areas that are easily accessible for harvesting
  - edible landscaping should be protected from potential contamination.