

URBAN FARMS AND GARDENS ON PUBLIC LAND

RECOMMENDATION

That the August 8, 2022, City Operations report CO01217, be received for information.

Requested Council Action	Information Only.		
ConnectEdmonton's Guiding Principle	ConnectEdmonton Strategic Goals		
CONNECTED	Healthy City, Urban Places, Regional Prosperity, and Climate Resilience		
City Plan Values	THRIVE.		
City Plan Big City Move(s)	Greener as We Grow and Catalyze and Converge	Relationship to Council's Strategic Priorities	Climate adaptation and energy transition Urban Shift Regional Economic Resilience
Corporate Business Plan	Serving Edmontonians.		
Council Policy, Program or Project Relationships	<ul style="list-style-type: none"> ● <i>fresh</i>: Edmonton's Food and Urban Agriculture Strategy ● Zoning Bylaw 12800 ● Communities in Bloom ● Community Group Led Construction Projects Guide ● Existing Community Gardens Program ● Guidelines for Developing a Community Garden & Edible Landscaping 		
Related Council Discussions	<ul style="list-style-type: none"> ● CR_2888 Bylaw 17403 - Text Amendment to Zoning Bylaw 12800 to add several urban agriculture uses and associated regulations ● CR_3247 Bylaw 17527 - Text Amendment to Zoning Bylaw 12800 to add 		

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Urban Agriculture Uses to additional zones

- CR_4399 Bylaw 17901 - Text Amendment to Zoning Bylaw 12800 to Update Urban Agriculture Regulations
- CO01216 Residential Boulevard Gardening Guidelines - Due First Quarter 2023 - UPC

Previous Council/Committee Action

At the April 4, 2022, City Council meeting, the following motion was passed:

That Administration explore options including the conversion of City maintained turf to urban gardens/farms and conduct high-level quantification of number of sites and gross area of the turf inventory potentially viable for agricultural activities, an analysis of barriers/opportunities, and outline of recommended next steps that align with the City Plan, Economic Action Plan and Climate Resilience Strategy and return to Committee.

Executive Summary

- Urban gardens and urban farms are potentially a means to reduce the amount of City-owned and maintained turf in open spaces and on boulevards.
 - The City has existing programs and processes for urban (community) gardens, administered under the City's Community Gardens program and Park and Facility Development Process.
 - There is a new initiative recently launched for residential boulevard gardening in 2022.
 - There is currently no program for urban farming on City-owned land.
- This report contains an overview of City-owned and maintained turf inventory potentially available for urban farms and gardens, based on high-level criteria that would support the lowest barriers to entry.
- Opportunities for urban farms include local economic development, education and building food resiliency. Potential challenges include land availability, length of the tenure agreement, and competing land uses for turf sites with other park and community assets (e.g. naturalization, tree planting, dog off-leash areas, playgrounds, splash parks).
- Next steps include continuing the existing community garden programs, with potential growth, and assessing support and demand for urban farms through public engagement, and consultation with the Edmonton Food Council and other stakeholders interested in urban agriculture.
- If the demand and commercial viability exists, Administration could develop an urban farm program.

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REPORT

Background

The City has been seeking ways to become more operationally efficient and reduce costs, including those associated with maintaining turf on City-owned open spaces. Supporting and developing urban farms and gardens aligns with this direction as well as with the objectives and strategic directions of *fresh: Edmonton's Food and Urban Agriculture Strategy* and contributing to Edmonton's climate adaptation strategy, *Climate Resilient Edmonton*, by helping to ensure that Edmonton's food systems are resilient, reliable and secure.

The City's Zoning Bylaw 28000 generally defines urban farms and gardens as the cultivating and harvesting of plant and animal products in urban areas. Farms typically involve product sales, whereas gardens support community, educational, recreational, rehabilitative or social programming. Administration has been exploring and supporting urban agriculture for several years through a number of existing initiatives and programs described in the 2021 annual Urban Gardening Initiatives report, included as Attachment 1, as well as:

- 2016 Zoning Bylaw 12800 changes allowing for urban agriculture and local food production activities across the city (Bylaw 17403, Bylaw 17527 and Bylaw 17901), including three new use classes, Urban Outdoor Farms, Urban Indoor Farms and Urban Gardens.
- The 2018 Vacant Lot for Urban Agriculture project - Pilot program to trial Vacant Lot Cultivation Licences.
- Current Zoning Bylaw Renewal Initiative - re-evaluating the entire Zoning Bylaw including a review of regulations for urban agriculture to further reduce barriers for new urban farms and gardens.

Land availability is a primary factor required to support the implementation of urban farms and gardens. This report examines the viability of City-owned and maintained turf conversion to urban farms and gardens through a high level turf inventory scan and provides an overview of the opportunities and considerations. It follows City Operations report CR_8442 Alternative Landscape Options for Boulevards and Turf (presented to City Council on April 4, 2022), in which options were explored to convert boulevards and turf for low maintenance, diversity and beautification purposes.

Turf Inventory Scan Results

In developing this report, Administration interviewed a variety of internal and external stakeholders to better understand the most important factors for selecting a site for an urban farm and garden. Stakeholders prioritized the size of land and site-specific factors related to

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growth potential such as soil quality, access to water and amount of sunlight. Administration then applied land size and other high-level selection criteria to identify City-owned and maintained turf open spaces that are potentially available for new urban farms and gardens.

An initial turf inventory scan that considered land size, slope, naturalization, real estate status and proximity to environmentally protected sites, pipelines and trees revealed:

- Potential urban farm sites: 47 sites with a total gross area of 85.14 ha (210.4 acres), or 2.1 percent of the City's total turf inventory.
- Potential new urban garden (community garden) sites: 739 sites with a total gross area of 207.9 ha (513.8 acres) are potentially available for urban gardens, or 5.1 per cent of the City's total turf inventory.

Attachment 2 provides a summary of the high-level criteria applied to identify potential urban farm and garden sites, considering the lowest barriers to entry. Individual site viability is not considered here as it is dependent on a wide range of factors.

The existing Community Garden program and Park and Facility Development Process is well established and includes an application process for community groups, requirements for needs assessments and public engagement led by the community and support from the City for assessing and approving sites for basic, intermediate and more complex gardens.

If the City were to move forward with establishing urban farms, proposed locations would require onsite-level assessments to determine actual usability or suitability. A detailed assessment process would need to be developed and include a number of criteria including operational, environmental, market demand, public support, regulatory/policy, existing/proposed land use, and other factors. One way to further evaluate the usability of sites is by applying a scoring matrix derived from stakeholder priorities (example in Attachment 3).

Opportunities and Challenges

Over the years, Edmonton's established urban community gardening programs have provided opportunities for education, enhanced food security and variety in the urban landscape. Urban farming would be a new undertaking, which could potentially provide opportunities for:

- Boosting the local economy through creation of more jobs, skills building, local procurement of supplies and equipment and making use of underutilized City-owned and maintained turf spaces.
- Providing product diversity to support local restaurants, food processors and markets.
- Reducing the inventory of turf needing to be maintained by the City in parks and open spaces.
- Growing crops year round using indoor farming facilities.

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- Reimagining spaces to non-conventional forms (indoor vertical farms, and partnerships between private owners and urban farmers).
- Applying farming in a non-conventional environment can encourage the development of new technology to support farming in an urban context.

Challenges of an urban farm program can include:

- Limited space available for urban farming to yield profitable margins compared to rural farming (difference in economies of scale).
- Constraints operating within an urban environment:
 - Competing land use interests.
 - Residential proximity to agricultural operations imposing restrictions.
 - Permit or licensing process for approval of land use for farming and associated costs.
- Limited robust business models within an urban context.
 - E.g. Growing niche products to adjust to constraints within an urban context. Limited scale and additional costs that could make it uncompetitive with rural farms.

NEXT STEPS

Urban gardens and urban farms are the two primary methods that were examined for turf conversion to increase opportunities for urban agriculture in Edmonton. In order to realize the opportunities described in this report and ensure accessibility to as many interested organizations and residents as possible, well planned, managed and resourced programs and processes are required. Should Committee wish to commence work on Urban Farming, Administration proposes the following next steps to investigate the feasibility of an urban farm program and for the continuation and expansion of existing community garden programs.

Urban Gardens

For urban gardens, next steps include continuing the existing community gardens program and completing the third year of the Pop-up Community Gardens pilot in 2022. Although the objective of this pilot was to increase gardening spaces in Edmonton, increase Edmontonians' access to fresh food, and to provide opportunities for safe activities that promote community involvement, recreation, and wellness to groups who identify as Indigenous, racialized, and those who have been experiencing greater impacts from the pandemic, this pilot has also served as a trial run for community groups potentially interested in a permanent garden. Some groups who have participated in the pilot are now starting the process to establish permanent community gardens through the Park and Facility Development process.

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The Community Gardens Program has experienced growth since it began in the early 1990s. Additionally, a program focused on boulevard gardening was recently launched (summer 2022) and an update to Council will be provided on the new program in Q1 2023.

Urban Farms

Administration is not currently considering the creation of an urban farm program. However, if directed by Community and Public Services Committee, next steps for urban farms would include determining feasibility of urban farming in Edmonton and the potential development and implementation of an urban farming program. This work would take a phased approach.

Phase I: Business Case and Public Engagement

- Conduct a municipal scan of urban farm programs.
- Policy and framework review to align with existing parks and open space policy.
- Identify opportunities for alignment and collaboration across different business areas for program and process development.
- Conduct public engagement to determine the level of public support and demand for urban farming on City-owned and maintained turf including gathering input from organizations such as Edmonton's Food Council, the Edmonton Metropolitan Region Board, and other levels of government interested in aligning or collaborating on urban agricultural initiatives.
- Design and release a "request for information" or "expression of interest" process to gauge demand from businesses and organizations wanting to leverage City-owned and maintained turf for urban farming.
- With sufficient public and stakeholder support and interest, proceed to create a business case, including a cost benefit analysis, to justify the creation of a program under Phase II.
 - Determine resources for ongoing program delivery, administration and promotion.
 - Develop a program implementation plan with key milestones.

Phase II: Program Development

- Detailed review of potential urban farm sites:
 - Includes developing a site selection/suitability process with a full set of criteria (environmental, operational, regulatory/policy, existing proposed/planned land use, strategic planning, technical reports, historical and adjacent use, site inspections, public engagement and support, etc.)
 - Confirm term agreement lengths and conditions.
- Design the program plan, objectives, key performance indicators, and types of business models that the program will support.

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- Examine existing processes and make modifications (or create new processes) to accommodate site selection, development and operation of urban farms (e.g parkland permits for urban farms, business licenses for urban farms, environmental assessments, public engagement, etc.).
- Customize building policies for urban farming (indoor vertical farming, hoop houses).

Phase III: Program Implementation

- Start accepting applications.
- Phased approach to implementing urban farms.
- Ongoing evaluation and recommendations.

Budget/Financial Implications

Urban Gardens

Administration is currently delivering the Community Gardens Program using an approved budget of \$145,546 and 0.5 of a Full Time Equivalent dedicated to coordinating the work. Over the last three years, unbudgeted additional resources were required to assist with the increased demand for community gardens, as well as the new Pop-up Garden Pilot. The annual cost for this was \$117,884.

The annual average cost of materials and equipment for the Pop-up Community Garden Pilot in 2020 and 2021 was \$87,000 annually using temporary COVID funds. In 2022, Administration is managing the pilot as unfunded and an evaluation will be undertaken to determine next steps. To date, the response and uptake is positive.

Upon Committee's direction, Administration could bring forward an unfunded service package as part of the 2023 to 2026 budget process to support operationalizing a Pop-up Community Garden program based on learnings from the three year pilot and/or growth of the existing Community Gardens Program.

Urban Farms

If directed by Committee, investigation into the feasibility and formalization of an urban farms program will require resources for project management, program implementation, research and public engagement, policy review, communications and education. Learnings from other municipalities highlighted that a dedicated program manager and administrative staff specialized in urban agriculture with a set of clear guidelines, will make applications smoother and encourage participation for more long-term success. If Committee provides direction for Administration to move forward with Phase I and II as outlined, one-time funding would be required. Administration may return to the 2023-2026 budget deliberations with an unfunded service package to support this work.

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Ongoing coordination of a new program and process for urban farming would require additional resourcing that would be determined once opportunities for integration between various business areas and processes are examined under Phase II. If additional resources are required, Administration would bring forward an operating service package in either 2023 or 2024.

COMMUNITY INSIGHT

Administration completed 10 one-on-one stakeholder engagement sessions with seven user groups: not-for-profit farms, restaurants, residents, social enterprise organization, public institution, not-for-profit organization/agency and a municipality who has an urban farm program. The engagement provided the factors for the assessment criteria that was applied to evaluate the City-owned and maintained turf sites and it gathered considerations for potential program development.

Overall stakeholders were supportive of the City pursuing more urban farms and gardens as they saw it as an effective educational tool to connect people to their food and offer an additional channel for people to grow food. Some concerns included short tenure agreements and using public park space for businesses to profit from the land. Additional community insights can be found in [Attachment 4](#).

GBA+

Urban agriculture provides opportunities for local food production that may benefit the local economy, jobs and supply chain (urban farms) or help to provide community participation, education and food security (urban/community gardens). User participation can be encouraged through reducing barriers such as complicated application processes, high application fees, operational limits and short tenure agreements.

The provision of public land for urban farms has a greater potential for other impacts on Edmontonians due to the size and nature of farms (versus gardens), including:

- Urban farms are likely to introduce or increase environmental irritants such as dust, odors, machine/truck noise, plant or animal allergens, and the potential of exposure to fertilizers or pesticides (either drift or runoff). This would be more significant for a farm location in a residential area.
- Unless fenced or otherwise secured, urban farms would introduce new public safety hazards into a location, including typical farming hazards.
- Large trucks and machines associated with urban farms may increase traffic.
- Loss or reduction of larger casual use City-owned and maintained turf, which may disproportionately impact local users that don't have the ability to access alternative locations.

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To manage other impacts of an urban farm program, and to ensure participation is attractive to a variety of users including businesses, not-for-profits and social enterprises, a more detailed GBA+ along with public engagement would be required for both program development and site selection or approval.

ATTACHMENTS

1. Urban Gardening Initiatives 2021
2. Turf Inventory Criteria - Site Evaluation
3. Site Evaluation Matrix
4. Community Insights