

Appendix A: Climate Resilient Burlington (CRB) Year 2 Progress Update

Year 2 updates for each of the CRB's 32 actions carried out in 2023 are provided in the tables below under each of the five themes:

- Theme 1: Resilient Built and Natural Infrastructure
- Theme 2: Thriving Natural Environment
- Theme 3: Health and Well-Being
- Theme 4: Disaster Resilience
- Theme 5: Strong and Resilient Economy

The [Year 1 update](#) provided in July 2023 is available at burlington.ca/climatechange. Improvements to the Year 2 progress update include:

- 1) The responsible City Lead(s) is more specific including not just the department but also a staff position.
- 2) A status update is provided for each action as noted below.
- 3) Specific target completion dates have been added including alignment with Vision to Focus (V2F) 2022-2026 target dates where applicable.
- 4) Appendix B has been added to the Year 2 update to report on Key Performance Indicators (KPIs).

Status	Definition	Number
Completed	Action has been fully implemented	1
Underway	Implementation has begun	14
Ongoing/continuous improvement	Action is continuous and has no end date	11
Not started	Implementation has not begun.	6
Delayed/At Risk	Funding and/or staff resourcing required to proceed.	0

Theme 1: Resilient Built and Natural Infrastructure

Infrastructure Design and Lifecycle Management

Goal: Manage infrastructure to prepare for future climate conditions and carbon neutral goals.

Indicator: Updated design standards (policy, bylaw, etc.) and programs in progress for City infrastructure incorporating future climate conditions and carbon neutral goals¹.

Target: Increasing

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>1-1: Expand natural asset data and incorporate priority natural assets into Burlington's Asset Management Plan</p> <p>Underway</p> <p>Completion date: 3-5 years (end of 2027) - V2F Q4 2025 for AMP update</p> <p>City lead: Analyst, Asset Planning, Engineering (Eng.) Services</p>	<p>In late 2023, City staff submitted an Expression of Interest Form for the Natural Asset Management (AM) Roadmap Program. This program provides municipalities the opportunity to build a high-level natural AM roadmap to start integrating natural AM considerations into overall AM practices. The program is being delivered by the Natural Assets Initiative in partnership with Intact Public Entities. The Burlington team was notified in 2024 that they will be part of the Spring 2024 cohort.</p> <p>Work to update the current Asset Management Plan (AMP), which was approved in 2021, is underway and will be presented to City Council in Q4 2025. The update will include expanded natural assets. In addition to street trees and 15% of park trees included in the 2021 AMP, it is hoped that information from the 37 woodlots identified within the Woodland Management Strategy will also be incorporated as well as the rain garden from the Plains Rd. project.</p> <p>Following the completion of the Grindstone Creek Watershed Natural Assets Management Report in November 2022, Conservation Halton (CH) in partnership with the City of Hamilton, City of Burlington, Halton Region, Royal Botanical Gardens, and Natural Asset Initiative, worked with a consultant to complete a study, funded by the Greenbelt Foundation, to better understand barriers and explore best practices for CH and partner municipalities to advance natural asset management in the Grindstone Creek watershed.</p>

¹ Revised indicator and target to better reflect the goal. Original indicator was “% of prioritized asset categories that have been assessed for future climate impacts.”

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<p>The study identified several challenges including jurisdictional issues, a lack of definitions for and standardized approaches to integrate natural assets into municipal asset management planning, valuation challenges for natural assets that often appreciate over time, benefits and services that originate or extend beyond municipal boundaries, and how to recognize and account for multifaceted benefits and services of natural assets. Continued collaboration between municipalities, CH, and other levels of government will be needed to address and overcome the challenges identified</p>
<p>1-2: Integrate future climate impacts in Burlington's Asset Management Plan for prioritized asset categories and assess long-term infrastructure funding requirements</p> <p>Underway (pilot project)</p> <p>Completion date: 5-10 years (by the end of 2032)</p> <p>City lead: Analyst, Asset Planning, Eng. Services</p>	<p>Between October 2022 and December 2023, City staff from asset management, linear assets, finance, and sustainability participated in a pilot cohort with 12 municipalities and supported by the Canadian Network of Asset Managers (CNAM) and a consultant to operationalize climate change in asset management policies and programs. Burlington's team took a high-level look at identifying which climate hazards pose the greatest risk to the transportation service (moving people and goods in Burlington) as a pilot. In 2024, the team will prepare a report with the intent to use the methodology and expand to other asset services and their respective asset leads to determine which climate hazards will pose the greatest risk to our ability to deliver services to the community. A case study will also be published by CNAM.</p>
<p>1-3: Review and if necessary update design standards for City infrastructure to account for future climate conditions in alignment with Federal and Provincial initiatives, and Burlington's net carbon neutral goals</p> <p>Ongoing – continuous improvement</p> <p>Completion date: Ongoing</p> <p>City leads: Manager, Design and Construction, Roads, Eng. Services Supervisor, Planning Policy, Community Planning Manager, Development and Stormwater Engineering, Eng. Services</p>	<p>An amendment to the Drainage By-law was approved in 2023 providing revisions to definitions and policy to prohibit the obstruction of any drain or watercourse and regulate the altering, relaying or repairing of private drains within the City of Burlington (report ES-27-23).</p> <p>The Stormwater Management Design Guidelines approved in 2020 will be revisited in 2025 to reflect current design practices, updated regulations and legislation, guidance from partner agencies and other levels of government, and new technologies. The City will also review rainfall intensity-duration-frequency (IDF) data on a 5-year cycle to ensure that the applied values continue to be reasonable and appropriate, including the potential effects of climate change.</p> <p>Preliminary work to develop a Complete Streets Guideline, which will include green infrastructure, has begun. This includes engaging with other municipalities who have implemented a Complete Streets Guideline and meeting with members of Council for insight. This initial engagement will help support the RFP development.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
Supervisor, Energy and Emissions, EICS	<p>In December 2021, City Council approved a recommendation to draft a business case for the preparation of a green roof bylaw and green roof construction standard in 2023. Staff continue to consider how to move this work forward, considering several unplanned provincial planning policy changes aimed at increasing housing supply.</p> <p>In 2023, the City and Burlington Hydro started working with a consultant (as per a City Council direction EICS-11-22) to support the electrification needs to implement the Climate Action Plan (on climate mitigation/GHG reduction) and ensure resiliency of the grid with our changing climate. A report will be presented to City Council in Q2 2024.</p> <p>Deep energy retrofit studies were completed at Appleby Ice Centre, Brant Hills Community Centre, Fire Station 2, and Fire Station 7 in 2023. These studies provide a pathway to transform each of these facilities into low carbon buildings. Detailed design for Appleby Ice Centre and Brant Hills Community Centre will begin in early 2024 with retrofits beginning for both projects in late 2024 or early 2025.</p> <p>A new net metered solar array installed at Fire Station 5 in 2023 will offset slightly more than 100% of the building’s electricity allowing for future electrification of the building’s heating system. This is the City’s second owned installation with the City View Park Pavilion in 2022 being the City’s first net carbon neutral operating building.</p>

Flood Management

Goal: Enhance resilience of infrastructure exposed to high flood risk.

Short term indicator: Percentage of City with future climate informed flood mapping for creeks. Target: 95% by 2027.

Long term indicator: Percentage of critical infrastructure exposed to high flood risk. Target: Decreasing long term.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
1-4: Develop Lake shoreline flood management strategy* augmenting existing plans to incorporate future climate projections and impacts to	<p><i>Windows to the Lake</i></p> <p>Port Nelson: Rebuilding the shoreline was completed in 2023 as part of Phase 1. The park is now open to the public. Phase 2 construction of the full park will be in Summer 2024.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>protect City assets (parkland and infrastructure)</p> <p>*Note that there aren't plans for one overarching strategy. This will be done on a site-by-site basis.</p> <p>Underway</p> <p>Completion date: 5-10 years (end of 2032)</p> <p>City leads: Manager, Design and Construction, Parks Stormwater Engineer - Development Eng. Services</p>	<p>Green Street: Rebuilding the shoreline was completed in 2023. The park is now open to the public but will close again in the spring 2024 to build the balance of the site.</p> <p>Walker's Line: Construction began in 2023 and is scheduled for completion and reopening in early 2024.</p> <p>Appleby Line: Design work to rebuild the shoreline and small parkette at the end of Appleby was well underway in 2023. Work is anticipated to start onsite in spring 2024 for completion by the end of the year.</p> <p><i>Burlington Beach (Beachway Park) Regional Waterfront Park Master Plan Implementation</i></p> <p>Beachway Park received funding under the Building Beach Resilience program in 2021. In Phase 1, over 2,000 beachgrass plants were transplanted by a Halton Region consultant to restore the foredunes at the park and new information signs on the dune restoration work were installed. Phase 2 took place in Fall 2023 with more beachgrass plants transplanted by the consultant, BurlingtonGreen and community volunteers to expand the foredune restoration and increase the beach resilience to high lake levels.</p> <p>In October 2023, Halton Regional Council approved modifications to the Burlington Beach Regional Waterfront Master Plan (CS-09-23/CA-09-23) based on the May 2023 comprehensive technical studies. "A key finding is the susceptibility of Beachway Park to increasing flooding and erosion... results of the flooding analysis highlight the flood vulnerability of not only the beach and dune environment at the park, but also Lakeshore Road and the interior lands proposed for the park expansion (e.g., The Commons)."</p> <p>"The Master Plan includes physical works to restore, and protect from future impacts, beach and dune areas as well as restoring vegetation to secure the beach and dune ecosystems. The Beach and Dune Restoration Plan details a nature-based solution to restore the foredunes at Beachway Park along with engineered headlands at the north end of the park."</p> <p>"Restoring the dune system can build the necessary resiliency of the Park against erosive forces that occur during periods of high lake levels (2017, 2019) and severe storm events (1972) and also generate multiple co-benefits including protecting infrastructure from coastal hazards, reducing maintenance costs associated with wind-blown sand, enhancing the beach for recreation, enhancing the ecosystem, and maintaining beach width during high lake levels. The flood risk was re-evaluated based on the dune restoration in the beach management plan. The 100-year flood is contained on the beach and the interior flood risk is significantly reduced."</p> <p>Based on the studies, key features of the 2015 Master Plan were altered:</p> <ul style="list-style-type: none"> - "Due to vulnerability of the northern portion of Beachway Park to erosion, a nature-based solution to shoreline generation is not feasible. With a hybrid grey-green restoration (mix of natural and conventional approaches), the Living Shoreline is proposed to be renamed "The Cobble Beach." - Several pathways and feature locations were slightly adjusted to avoid storm event impacts and risk of flooding.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<ul style="list-style-type: none"> - The Beach and Dune Restoration Management Plan directs where and how foredune restoration should be advanced and measures for controlling future public access to ensure the success of dune rehabilitation efforts. - Located at the boundary between The Cobble Beach and The Strand, the functionality of this feature has been modified to also provide access for maintenance equipment, future beach nourishment and limited beach raking on the dry beach.” <p><i>Burloak Regional Waterfront Park Master Plan – Fall 2023 Update</i></p> <p>Halton Regional Council received an update on the Burloak Regional Waterfront Park Master Plan implementation (CS-10-23/CA-10-23). The detailed design work for phase 3 is underway with construction anticipated to start in spring 2025.</p>
<p>1-5: Enhance creek flood protection plan</p> <ul style="list-style-type: none"> - Review and if necessary update regulatory flood hazard maps reflecting future climate risks and integrating the mapping in land use planning studies <p>Ongoing - Continuous Improvement</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Stormwater Engineer - Development, Eng. Services</p>	<p>The City regularly undertakes projects to address erosion concerns. In 2023, these included:</p> <ul style="list-style-type: none"> - Grindstone Creek at Sumac Dr. to Unsworth Ave. – 200 m - Grindstone Creek at Waterdown Rd. to Hidden Valley Park – 140 m - No. 8 Side Road drainage improvements - 20 m - Appleby Creek Phase 1 erosion control at Lake Ontario to Lakeshore Rd. – 180 m - 3175 No. 1 Side Road: two culvert replacements <p>Every five years, there is a comprehensive creek inventory which includes walking along the entire 130 km of urban creeks to outline where rehabilitation is needed. The next one is scheduled for 2025.</p> <p>Over the past few years, Conservation Halton (CH) has embarked on a major review and update of regulatory mapping (e.g., flood hazard mapping, wetland mapping, watercourse mapping, etc.). Updated flood hazard mapping helps to support planning and regulations and flood forecasting operations. This mapping also informs infrastructure management decisions, emergency planning and response, prioritization of flood mitigation efforts, and infrastructure design.</p> <ul style="list-style-type: none"> - East Burlington Creeks - In 2023, CH completed a flood hazard mapping study updating flood hazard mapping and modelling for Tuck, Shoreacres, Appleby and Sheldon creeks incorporating future climate risks within flood events up to the 1:100-year storm. - Rambo System South of QEW, including Lower Rambo Creek - In 2023, the City completed a Phase 2 Flood Hazard Assessment for downtown Burlington and the Burlington GO Major Transit Station Area (MTSA) incorporating future climate risks within flood

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<p>events up to the 1:100-year storm. In late 2023, the City in collaboration with CH, initiated a high-level flood mitigation assessment for this area.</p> <p>Modernization of Flood Forecasting and Operations is ongoing at CH with a focus on enhancing Watershed Monitoring and Flood Forecasting and Warning System.</p> <ul style="list-style-type: none"> - Watershed Monitoring includes equipment upgrades, installation and planning for new monitoring stations to increase spatial coverage (e.g., rain gauges, stream gauging stations), partner collaboration (funding and data/information sharing), new software system for near real-time monitoring, alarming, analysis, and enhanced data management. - Flood Forecasting and Warning System includes ongoing efforts to improve ability to forecast potential flooding events associated with climate change, including looking at increased lead times specifically for smaller urban watersheds dominated by localized convective type storm events, and greater detail regarding spatiality of events. The system uses a cloud-based software platform using continuous watershed hydrologic models and integrated gridded numerical forecast predictions to generate forecast flood flow hydrographs. The system also uses models to generate forecast flood inundation mapping at flood sensitive locations. <p>CH is developing a Watershed-Based Resource Management Strategy to guide its programs and services. The Watershed Strategy will help CH continue to protect natural systems and mitigate natural hazards in the communities it serves. In late 2023, CH identified 12 key natural resource issues within its watershed and collected feedback through a public survey to better understand what community members and partners identify as key natural resources issues in CH's watersheds. The feedback will help CH prioritize key natural resource issues that the Watershed Strategy will address. Climate change is resulting in increasingly unpredictable, warmer, and wetter weather patterns that impact natural resources in Conservation Halton's watersheds. To assess potential future climate risks, CH developed a Watershed Climate Change Vulnerability and Risk Assessment (Full Report – Executive Summary). The goal of the study was to identify the highest vulnerabilities and risks to natural resources based on climate projections and to recommend actions that CH can take to enhance adaptive capacity and resilience in our watersheds. The findings of the study will be used to develop a Climate Resiliency Plan that informs the Watershed Strategy.</p> <p>On Apr. 1, 2024, Ontario Regulation 162/06 will be replaced with Ontario Regulation 41/24 and associated sections of the <i>Conservation Authorities Act</i> will be proclaimed. Under the changed legislation and new regulation, CH continues to regulate all</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<p>watercourses, valleylands, wetlands, Lake Ontario and Burlington Bay shoreline, and hazardous lands, as well as lands adjacent to these features. Under the new regulation, the CH regulatory allowance is now 15 metres (previously 7.5 m) from the hazard limit for all valley systems. The purpose of the regulation is to protect people and property from the risks associated with natural hazards and to prevent worsening of existing hazards or the creation of new hazards. Permission is required from CH to develop in these areas.</p>
<p>1-6: Enhance emergency preparedness plans and public communication of flood risk with more detailed flood hazard information</p> <ul style="list-style-type: none"> - Develop emergency flood management procedures using predictive rainfall information for stormwater infrastructure <p>Underway</p> <p>Completion date: 5-10 years (by the end of 2032)</p> <p>City lead: Specialist, Community Emergency Management, Fire Dept.</p>	<p>In 2023, a comprehensive review of Burlington’s Emergency Continuity Management Program, including the City’s Emergency Response Plan, was undertaken, with a new program bylaw, Bylaw 07-2024 Emergency and Continuity Management Program, being adopted by Council on Feb. 13, 2024. The program provides a comprehensive framework for managing large-scale emergencies and disasters and ensuring the continuity of essential services. The City’s Emergency Response Plan provides a framework for how the City of Burlington will provide a planned, coordinated, and effective response to protect life, property, the environment, and local economy when faced with complex, large-scale emergencies.</p> <p>Conservation Halton’s (CH) flood forecasting team is responsible for operating a forecasting and warning system and for monitoring and advising municipalities on flood conditions. CH currently collects near real-time data from 46 rain gauges within, and immediately adjacent to their jurisdiction. There are 12 rain gauges located within Burlington with several additional rain gauges located near the municipal boundary. At the start of 2024, this covered approximately 74 percent of Burlington. CH’s strategic objective in Momentum is to achieve 70 to 80 percent coverage across their jurisdiction by the end 2024. They are currently at 75 percent overall.</p> <p>When CH issues flood messages, they are shared with City staff as appropriate depending on the flood message level. CH publicly reports on their Twitter/X account and the City also shares via their Twitter/X account. In addition, procedures have been developed regarding sending emergency notifications using Alert Burlington and requesting that Emergency Management Ontario issue an Alert Ready notification on behalf of the City of Burlington during flooding that presents threats to life safety.</p>
<p>1-7: Enhance coordination with partner agencies and higher levels of government to ensure that flood hazard maps and protection measures are up to date to manage flood risks</p> <p>Ongoing – continuous improvement</p>	<p>In December 2023, the City and CH started to work together to look at (flood) spill mitigation options and potential for downtown lands. It is anticipated that the work will be completed by Q4 2024.</p> <p>CH continues to update their flood hazard mapping to support planning and regulations and flood forecasting operations. This mapping also informs infrastructure management decisions, emergency planning and response, prioritization of flood mitigation efforts, and infrastructure design. See actions 1-5 and 1-6 above for additional CH updates.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>Completion date: 5-10 years (by the end of 2032)</p> <p>City lead: Stormwater Engineer - Development, Eng. Services</p>	<p>In 2023, the Government of Canada released their updated Adaptation Action Plan (released in November 2022 for final comment and final released in June 2023). One action is to prepare for, respond to, and recover from climate-related disasters by ensuring that all Canadians have access to free, up-to-date and authoritative flood hazard maps by investing up to \$164 million over five years and working with the provinces and territories to increase Canada’s resilience to flooding by expanding the Flood Hazard Identification Mapping Program.</p>

Service Disruption

Goal: Invest in proactive measures to prepare for increased extreme events to avoid post storm reactive costs.

Indicator: Dollars spent on response and recovery of extreme events by type and severity

Target: Decreasing long term trend (depends on type, frequency and severity of event)

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>1-8: Develop tracking for post-storm assessment to inform recovery and future adaptation efforts including data on type and severity of event, type of damage, amount or cost of damage, debris management to improve debris pick-up, etc.</p> <p>Underway (Forestry)</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City leads: Manager, Urban Forestry & City Arborist Manager, Park Operations Manager, Road Operations Roads, Parks and Forestry (RPF)</p>	<p>Forestry staff track storm damage costs through separate work orders for storms anticipated to cost over \$10K and a combined work order to track smaller storms.</p> <ul style="list-style-type: none"> - March 4-5 costs: \$43,879 - March 25-26 costs: \$25,279 - One-off costs in 2023 (less than \$10K/incident): \$93,536 <p>As of September 2023, an on-call in-house program for Forestry was added to decrease contractor storm related costs which typically average \$250K-300K per year:</p> <ul style="list-style-type: none"> - On-call salary costs: \$20K - On-call union costs: \$17K <p>In 2024, the on-call program is anticipated to run from Apr. 1 to Nov. 30.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<p>Burlington Hydro reported two major weather-related events in 2022 and one event in 2023.</p> <ul style="list-style-type: none"> - July 27, 2023 – wind event caused large tree limbs from an adjacent property to fall across two feeder lines in the right of way affecting 10,678 customers (15%). It took 4.5 hours to restore 90% of impacted customers.
<p>1-9: Maintain level of service for tree pruning and enhance risk assessment protocol in areas with above-ground powerlines, near major roads, near fire stations, etc.</p> <p>Ongoing – continuous improvement</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Manager, Urban Forestry & City Arborist, RPF</p>	<p>Burlington's street tree pruning program targets a seven-year pruning cycle. In recent years, this target has not been achieved due to program capacity and budgetary limitations.</p> <ul style="list-style-type: none"> - Preventative grid pruning helps keep the public right of way safe by making trees more resilient to extreme weather events, ensures clearance for vehicular and pedestrian traffic and maintains visibility of signage. Service requests have shown to trend downward in years following grid pruning operations reducing the amount of reactive maintenance required. - The current grid pruning program annual budget is \$700K. An \$80K (pg. 37) budget request was made in 2023 for the 2024 budget year to help close the gap on the \$500K funding shortfall required to achieve a seven-year pruning cycle. <p>Burlington Hydro has a rotating three-year tree trimming maintenance program which aims to minimize outages that are caused by tree limb contacts. Their 2023-2025 tree trimming schedule is posted online.</p>
<p>1-10: Invest in backup power for City infrastructure</p> <ul style="list-style-type: none"> - Assess backup power needs to sustain critical services during a significant power outage including consideration of vulnerable populations - Develop a plan utilizing permanent and temporary backup power sources and partnering with community stakeholders <p>Completed</p> <p>Completion date: 3-5 years (end of 2027)</p>	<p>The City has three Emergency Operations Centre locations and an evacuation centre for emergencies; two of which can serve as population shelters if needed.</p> <p>The City has a total of 15 generators to provide back-up power for facilities' critical infrastructure and ensure business continuity. Thirteen of the generators are permanent and automatically detect power failure to start and two generators are portable and can be transported and hooked up during emergency situations where needed.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>City lead: Supervisor, Facilities & Buildings Asset Management, EICS</p> <p>1-11: Develop wind risk and vulnerability mapping to communicate high risk areas, inform emergency response planning, prioritize maintenance activities, and guide community planning</p> <p>Not started</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Specialist, Community Emergency Management, Fire</p>	<p>Each year, the City's Hazard Identification and Risk Assessment (HIRA) is reviewed and updated as needed, as per the provincial <i>Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.09</i>. In 2023, high wind was identified as the fifth highest hazard, and in 2021, was identified as the second highest ranked community hazard. The 2021 HIRA report recommended that "all higher risk hazards identified in the assessment that have a higher risk associated with public safety, the environmental, and regulatory impact should be covered in the emergency management program for the City and should be reviewed to ensure that associated mitigation programs are adequate to deal with emergencies associated with the hazards (e.g., flood, winter weather, fire/explosion hazards)."</p> <p>A request for funding was submitted to the City's Strategy and Risk Team in 2023 for the 2024 budget and classified as Priority 4 (on-hold for future consideration).</p>
<p>1-12: Assess snow management plan to ensure a climate lens is applied to incorporate increased frequency and severity of extreme events (e.g., heavy snow, freezing rain, wind) with consideration of impacts to vulnerable populations</p> <p>Ongoing/Continuous Improvement</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Manager, Road Operations, RPF</p>	<p>Vision to Focus 2018-2022 included a key action to "review snow cleaning service levels for all mobility modes (e.g., trails, sidewalks, bike lanes and roads)." The September 2021 Winter Services Update report (RPF-18-21) presented opportunities for improved snow clearing on walkway linkages to various schools, with implementation dependent on agreements with both school boards. In July 2022, City staff presented the additional list of pathways to be maintained and confirmed authorization to proceed with winter maintenance of various pedestrian linkages on school property for both school boards (RPF-19-22). A budget request was submitted and approved in 2023 for the 2024 budget year.</p> <p>Further opportunities to increase winter service coverage to off-road facilities and better align winter maintenance services with the ideal pedestrian network was undertaken as part of the City's Integrated Mobility Plan review (CS-10-22 Appendix A pg. 13).</p>
<p>1-13: Assess the impacts of projected climate conditions on all recreation services offered by the City to determine adaptive measures for long term</p>	<p>Key environmental considerations will be considered as the Live and Play Plan is developed including:</p> <ul style="list-style-type: none"> - How parks can be sustained through increased warmer, wilder, and wetter weather.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>recreational needs, including consideration for impacts on vulnerable populations.</p> <p>Underway</p> <p>Completion date: 3-5 years (end of 2027) - V2F Q4 2025</p> <p>City lead: Senior Manager, Community Development, Recreation, Community and Culture (RCC)</p>	<ul style="list-style-type: none"> - The desire for any new builds and existing facilities to have a smaller carbon footprint and use strategies like renewable energy and waste reduction. - Knowing the positive aspects of parks within the context of climate change, such as reducing urban heat islands, improving air quality, and supporting biodiversity. - Parks will require the right amenities (such as increased shade and shelter, water fountains, field drainage, etc.) so residents can still enjoy and use them as our climate changes.

Theme 2: Thriving Natural Environment

Tree Management

Goal: Reduce damage to trees while increasing the value of the services they provide.

Indicator: Number of work records regarding tree removals and limb failures per storm, per year². Target: Decreasing long term trend (depends on type, frequency and severity of extreme storms).

Indicator: Percentage of tree canopy cover. Target: 35% by 2060³.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>2-1: Invest in full tree life cycle management balancing amount of planting and ongoing maintenance to improve tree survival outcomes:</p> <ul style="list-style-type: none"> - "Training young trees" programming for stronger trees to withstand extremes - Forestry on-call program 	<p>In 2023, the City of Burlington supported tree plantings with:</p> <ul style="list-style-type: none"> - 2,081 caliper (larger) trees planted street side (in front of people’s homes) as part of the replacement tree program; - 1,779 container trees were planted in community supported planting events (Paletta, Milcroft and Norton parks); and - 1,152 distributed through giveaways.

² Indicator modified slightly to improve access to data.

³ Indicator updated to correspond with a new target identified in 2022-2026 Burlington’s Plan From Vision to Focus.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<ul style="list-style-type: none"> - Coordination with volunteers for tree maintenance - Enhanced pruning <p>Ongoing – continuous improvement</p> <p>Completion date: Ongoing</p> <p>City lead: Manager, Urban Forestry & City Arborist, Roads, Parks, and Forestry</p>	<p>As noted under action 1-8, a Forestry on call program was implemented in September 2023 with supervisory staff on call until Dec. 1, 2023. In the event of a tree failure, storm event, etc., in house staff and a supervisor were on call. In 2024, the program will run from Apr. 1 to Nov. 30.</p> <p>As reported last year, in November 2022, the City of Burlington partnered with industry leaders for a Young Tree Pilot Study. The purpose of the three-year study is to assess the beneficial effects of fungi and bacteria that are added to the soil of transplanted young trees in the hope of improved growth and survival. There are no updates on this project.</p>
<p>2-2: Incorporate a climate lens in recommendations of management decisions in the Urban Forest Master Plan (UFMP) to maximize co-benefits:</p> <ul style="list-style-type: none"> - Research to determine tree canopy coverage and assess species vulnerable to climate change - Consider shade for extreme heat, water retention for stormwater management, supporting biodiversity and carbon sequestration - Consider rural areas, vulnerable populations and equity in prioritizing investments - Maximize ecosystem services <p>Underway</p> <p>Completion date: 3-5 years (end of 2027 - V2F states Q2 2024)</p> <p>City lead: Manager, Urban Forestry & City Arborist, Roads, Parks and Forestry</p>	<p>In 2023, phase two engagement for the Urban Forest Master Plan (UFMP) took place to inform community members about the draft plan and to seek insights on proposed goals and targets. An interim update was also provided on the Woodland Management Strategy (WMS) (includes management plans for 37 City forests). The final Plan and Strategy will be presented to City Council in Q2 2024 for approval.</p> <p>Burlington’s city-wide canopy cover using 2018 data is estimated to be 30%, covering more than 5,500 hectares (22% in the urban area and 36% in the rural area). The goal is to update canopy cover statistics in a follow-up State of the Urban Forest report and every five years after that pending funding.</p> <p>Forestry staff have started conversations with Halton Public Housing on planting in areas with low tree equity scores. The goal is to review sites that Halton Region owns to determine if additional trees can be planted onsite.</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>2-3: Invest and support implementation of UFMP</p> <p>Not started</p> <p>Completion date: 5-10 years (end of 2032)</p> <p>City lead: Manager, Urban Forestry & City Arborist, Roads, Parks and Forestry</p>	<p>Once the UFMP and WMS are approved, budget requests will be submitted as part of the regular annual budget process.</p>

Natural Area Management

Goal: Value, conserve and enhance the multiple services that natural areas provide.

Indicator: Dollars spent on green infrastructure projects. Target: Increase.

Indicator: TDB through Biodiversity Plan. Target: TBD.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>2-4: Invest in green infrastructure to reduce flood risk, enhance habitat connectivity and support other ecosystem services</p> <p>Ongoing – continuous improvement</p> <p>Completion date: Ongoing</p> <p>City leads: Stormwater Engineer - Development</p>	<p>The Plains Road protected bikeway project was completed in 2023 and includes the installation of a rain garden at the intersection of Howard Road and Plains Road West, featuring 18 new trees and a variety of different grass species and flowers. It is anticipated that this natural asset will be included in the City's inventory of natural assets within the Asset Management Plan in 2025.</p> <p>One of the first initiatives funded by Parks Canada's National Program for Ecological Corridors was the Cootes to Escarpment EcoPark System Ecological Corridors Pilot Program. Under this program, a \$45K project was approved at City View Park which included the following:</p> <ul style="list-style-type: none"> - Spring 2023 - Assessing and evaluating the success of restoration work from more than 10 years ago including: <ul style="list-style-type: none"> o The condition of the existing vegetation. o A comprehensive list of all existing vegetation including invasive species. o Mapping to show areas of opportunity for more planting including a list of recommended species. o Tree protection, maintenance requirements and any other improvements as necessary.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>Manager, Design and Construction, Parks Manager, Design and Construction, Roads Eng. Services</p>	<ul style="list-style-type: none"> - Fall 2023 – Planting 60 native trees and 200 native shrubs in some of the recommended areas outlined in the mapping. Although the area planted is small in comparison to the opportunity areas, the mapping will provide direction for any future funding or planting initiatives. <p>Additional green infrastructure projects (plantings) are identified under actions 1-1, 1-4, 2-1 and 2-5.</p>
<p>2-5: Establish a City-Wide Biodiversity Plan that addresses:</p> <ul style="list-style-type: none"> - local effects of climate change on wildlife and biodiversity - habitat connectivity and wildlife corridors - ecosystem resilience - invasive species management - urban and rural landscaping behaviours and operations and maintenance that can support plants and wildlife - integration of citizen science - habitat restoration - ecosystem services 	<p>Although a City-Wide Biodiversity Plan is not yet being developed, there is a lot of work taking place on this portfolio.</p> <p>A budget request for the first phase on the Biodiversity Plan (gap analysis) was brought forward to the City’s Strategy and Risk Team in 2023 and will be prioritized in future budgets. In the meantime, data related to biodiversity indicators will continue to be collected, assessed, and made available through various City GIS/IT applications. Staff will continue to leverage relationships with agencies that have ongoing biodiversity projects:</p> <ul style="list-style-type: none"> - Biodiversity Strategy for Halton Regional Forests - Conservation Halton’s (CH’s) Guiding Principles for Supporting Biodiversity <p>New information and data will inform subsequent budget requests for a City Biodiversity Plan.</p> <p>In December 2023, City Council approved a motion for the Trumpeter Swan to be designated as the City of Burlington’s official City Bird as required under Nature Canada’s criteria for Bird Friendly Cities, which Burlington was designated in April 2022.</p> <p>The City of Burlington is working with several partners to monitor and control the spread of Marbled Crayfish, a highly invasive species. City View Park is the first place in North America where the species has been found in the wild.</p> <p>The Effects of Climate Change on Biodiversity within Conservation Halton’s (CH) Watersheds was approved by the CH Board in September 2023. Both the full report and executive summary are available on the CH website.</p> <p>CH is updating its management plans for Clappison Woods and Waterdown Woods that form part of the Cootes to Escarpment EcoPark System. They sought public feedback in 2023 for the 508 acre (205 ha) open space and nature sanctuary. The purpose of the study is to update the 2016 management plans for these sites and combine them into a single plan that will outline the values, constraints and</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>Not started</p> <p>Completion date: 5-10 years (end of 2032)</p> <p>City leads: Manager, Urban Forestry & City Arborist, Roads, Parks and Forestry Senior Planner, Policy, Community Planning Dept.</p>	<p>management priorities in relation to each conservation area's spaces and functions within the Niagara Escarpment Parks and Open Space System.</p> <p>The annual Watershed Stewards Appreciation Day was held on Sept. 10, 2023 in partnership with CH and Hamilton Conservation Authority. Burlington residents J. and T. Pahapill received a Watershed Stewardship Award for their permeable driveway and rain garden.</p> <p>CH's Water Quality and Habitat Improvement program is a funding incentive program supporting landowners carrying out projects that contribute to water and habitat quality. Three projects were supported in 2023 including one in the Cedar Springs community where 275 trees and shrubs were planted over two events to replace the losses due to Emerald Ash Borer; another for cover crops on agricultural land; and the third to remove invasive species from a rural residence in Burlington.</p> <p>Three landowner projects were also carried out in the Hidden Valley neighbourhood through Parks Canada National Program for Ecological Corridors including two invasive removals with native plantings and one native planting. With the City's support, invasive species were removed, and 200 trees and shrubs were planted at Hidden Valley Park to strengthen creekside habitat along Grindstone Creek and improve important ecological corridors.</p> <p>In 2023, Conservation Halton:</p> <ul style="list-style-type: none"> • restored 105 hectares of wetlands, forests and other natural areas • improved 8.5 kilometers of creek and stream habitat • planted more than 130,000 trees and shrubs • managed 39 invasive species and • monitored 842 environmental sites across its watershed jurisdiction, including Burlington <p>BurlingtonGreen is improving local biodiversity through their annual Green Up tree planting event held on Earth Day along with their fall Tree Loving Care workshop, hosted in partnership with City forestry staff. They introduced a pollinator teaching garden at their Eco Hub</p>

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	headquarters in 2023 where they also hosted invasive garlic mustard removal workshops, with free native plant seed packets distributed to the community as part of their popular Nature Friendly Burlington program .

Theme 3: Health and Wellbeing

Extreme Heat and Health

Goal: Provide City services to support the community during extreme heat events.

Indicator: Number of aquatic facilities (pools, misters and splash pads) per 10,000 residents. Target: TBD through Parks Master Plan.

Indicator: Percentage of community within walking distance to a public space cooling facility. Target: 100% by 2035.

Action/Status/Staff Lead(s)	2023 Updates/ Year 2
<p>3-1: Develop program to support vulnerable populations in installing and maintaining cooling systems</p> <p>Not started</p> <p>Completion date: 5-10 years (end of 2032)</p> <p>City lead: Manager, Environmental Sustainability, EICS</p>	<p>In 2023, the City of Burlington launched the Better Homes Burlington Energy Retrofit Pilot Program to encourage the installation of air source heat pumps, reducing emissions and increasing home comfort. A component of the program included a concierge service to provide information about weatherproofing homes when inquiries were received.</p> <p>The Canada Greener Homes Initiative (consisting of a loan and grant program) was launched in December 2020 with over 500 million applications received and 700 million grants issued to 165,000 Canadian households (as of Jan. 22, 2024) to upgrade their homes with energy improvements saving an average of \$386 per year on energy bills. The top five retrofits were heat pumps, windows and doors, home insulation, air sealing, and solar panels.</p> <p>Oil to Heat Pump Affordability Program: Homeowners meeting certain criteria, such as heating homes by oil and are low-to-median households, may be eligible for a grant of up to \$10,000 for the installation of a heat pump.</p>
3-2: Identify gaps in public space cooling by assessing utilization of current cooling facilities and by identifying the type of cooling supports	In late 2023, the City of Burlington hired Community Development Halton to work on this initiative in 2024. Project staff will go directly to people at their gathering places to ask them where they are going during hot weather to cool off.

Action/Status/Staff Lead(s)	2023 Updates/ Year 2
<p>and accessibility needs of the community especially for vulnerable populations</p> <p>Underway</p> <p>Completion date: 1-2 years (Q4 2024)</p> <p>City lead: Senior Manager, Community Development, RCC</p>	
<p>3-3: Conduct an Urban Heat Island (UHI) assessment to inform infrastructure design guidelines, shade structures, cooling facilities and UFMP</p> <p>Underway (Work already started through the UFMP but will need additional funding to complete the UHI assessment for this purpose).</p> <p>Completion date: 3-5 years (end of 2027 - V2F identifies target as Q4 2026)</p> <p>City lead: Fleur Storace-Hogan, Coordinator, Sustainability Projects, EICS</p>	<p>The Urban Forest Master Plan story map shows maps with mean surface temperature, impervious surfaces and canopy equity in Burlington. Providing canopy cover and greening within 100 metres of where people live, work and play can reduce the risk of heat related illness and death during extreme heat events. Canopy cover is not equally distributed across the city. As a result, benefits from the urban forest are not experienced equitably across Burlington's neighborhoods. Households with lower incomes, minority groups, seniors, children, and unemployed people are more vulnerable to the effects of climate change and may benefit more from having trees near where they live and work. Additional information is available in the 2022 State of the Urban Forest Report.</p> <p>Additional work will be needed to fulfill the intent of this action.</p>
<p>3-4: Explore the feasibility of updating the Property Standards Bylaw to include requirements to keep indoor temperatures from exceeding a maximum threshold</p> <p>Not started</p> <p>Completion date: 3-5 years</p> <p>City lead: Municipal Bylaw Enforcement Officer, Bylaw Compliance Dept.</p>	<p>City staff are monitoring the May 15, 2023 motion at the Special Public Health Committee meeting in Hamilton directing the following staff to report back in Q4 2023 (no follow-up reports in 2023):</p> <ul style="list-style-type: none"> - Licensing and Bylaw Services Division staff on identifying the 2024 priorities and timelines for the development of new bylaws including an Adequate Temperature Bylaw; - Health and Safe Communities staff on the feasibility of the development of a municipal program to support low-income tenants with the cost to run an air conditioning unit to support retrofits of private purpose-built rental housing; and - Healthy and Safe Communities and Public Health on the feasibility of tracking heat-related deaths and illnesses in Hamilton.

Action/Status/Staff Lead(s)	2023 Updates/ Year 2
	<p>In December 2023, the Province of British Columbia adopted the British Columbia Building and Fire Codes (BC Codes 2024 – most to come into effect March 8, 2024) to provide people with a greater level of building safety and to make new buildings more sustainable, resilient and accessible. This includes providing one living space that is designated not to exceed 26°C, which depending on weather and site conditions, might require a cooling appliance. Note the BC Building Code does not apply on some federal lands and in the City of Vancouver which has its own building bylaw.</p>
<p>3-5: Incorporate shade (natural and built) and opportunities for cooling with water play as well as water fountains and bottle filling stations for access to free hydration into park development</p> <p>Ongoing – continuous improvement</p> <p>Completion date: Ongoing</p> <p>City lead: Manager, Design and Construction, Parks, Eng. Services</p>	<p>This continues to be top of mind in park development. In 2023, the following projects were carried out:</p> <ul style="list-style-type: none"> - Lampman Park - one water fountain and numerous trees installed during construction. - Leighland Park - several shade structures, one water fountain and numerous trees installed during construction. - City View Park - numerous trees planted in coordination with Cootes to Escarpment. See action 2-4 for more information. - Hidden Valley Park – numerous trees planted in coordination with Conservation Halton. See action 2-5 for more information. - Lansdown Park - one bottle filling station, one splash pad, one shade structure and extensive (50+) tree planting during construction.

Theme 4: Disaster Resilience

Community Education and Resilience

Goal: Build capacity in the community to prepare for and respond to more extreme events and long-term climate stresses.

Indicator: Percentage of urban area connected to a resilience hub within walking distance (15 min). Target: 100% by 2040.

Indicator: Key locations for rural resilience hubs established. Target: Two by 2032.

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>4-1: Enhance emergency notification and communications plan incorporating needs of vulnerable populations</p> <p>Underway (with enhancing emergency notification. Funding application to reach vulnerable populations submitted but not successful).</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Specialist, Community Emergency Management, Fire</p>	<p>Alert Burlington, Burlington’s public notification system for community emergencies was tested on Dec. 13, 2023, to:</p> <ul style="list-style-type: none"> • Increase awareness of the system. • Remind subscribers to check their account to ensure all contact information is up to date. • Confirm the effectiveness and reliability of the alert system to ensure it operates as intended for administrators and users. • Remind residents to create and maintain an emergency plan. <p>Subscribers can choose to receive Alert Burlington notifications in several languages, which results in individuals who are not fluent in English (including but not limited to newcomers) being able to receive alerts in their preferred language. As of Dec. 31, 2023, Alert Burlington had 3,999 subscribers, which represents a 51% increase from Dec. 31, 2022.</p> <p>An application was submitted to the Ontario Resource Centre for Climate Adaptation (ORCCA) Staff Capacity Program on Dec. 1, 2023 to fulfill this action in 2024 but was not successful.</p>
<p>4-2: Develop a Community Climate Resilience Education Program focusing on high climate risks</p> <p>Help residents understand climate science, risks, adaptation actions, funding opportunities and relevant City initiatives</p> <p>Underway (Additional funding is required).</p> <p>Completion date: 1-2 years (Q2 2024 in V2F)</p> <p>City lead: Coordinator, Sustainability Projects, EICS</p>	<p>A Climate Action in Burlington video was created in 2023 and launched in Jan. 2024 to highlight the work the City has done to date regarding climate mitigation and adaptation. It is anticipated additional videos will be created pending funding availability. A budget request was brought forward to the City’s Strategy and Risk Team in 2023 and will be prioritized in future budgets.</p> <p>The City continues to promote existing programs including:</p> <ul style="list-style-type: none"> - Home Flood Protection Program - Plumbing Permit Fee Grant Program - Halton Region Enhanced Basement Flooding Prevention Subsidy Program - Healthy Neighboursheds series - Home Efficiency Rebate Program

Action/Status/Staff Lead(s)	2023 Updates/Year 2
	<ul style="list-style-type: none"> - Home Winterproofing Program <p>Greenspace Newcomer Youth Climate Forum welcomed another cohort. Workshops were held monthly from Oct. 2023 to June 2024 giving youth the opportunity to gain hands-on experience and the knowledge and skills needed to take on leadership roles in local climate action initiatives.</p>
<p>4-3: Enhance funding and supports for community and neighbourhood social resilience programs in urban and rural communities</p> <ul style="list-style-type: none"> - Establish Resilience Hubs across the City - Establish a help line to support vulnerable populations during and after extreme events - Train residents in emergency preparedness - Restart and increase funding for Community Support Fund - Increase funding for Neighbourhood Community Matching Fund <p>Not started</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Senior Manager, Community Development, RCC</p>	<p>The City has two Community Hubs available for community groups to provide free activities, programs or events to Burlington residents. These hubs can be used for training related to this program in the future.</p>

Citizen and Business Support Programs

Goal: Encourage climate adaptation actions from citizens and businesses.

Indicator: Uptake of citizen and business climate resilience retrofits. Target: Increase.

Action/Status/Staff Lead(s)	2023 Updates/ Year 2
<p>4-4: Promote and augment existing programs for home and business climate resilience retrofits</p> <p>Ongoing/continuous improvement</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Coordinator, Sustainability Projects, EICS</p>	<p>In 2023, the City's Home Flood Prevention webpage was updated to include promotion of the Home Flood Protection Program, Plumbing Permit Fee Grant Program and Halton Region's Enhanced Basement Flooding Prevention Subsidy Program. The programs were also promoted on the Take Action Burlington blog and through the Better Homes Burlington concierge service.</p> <p>Between 2014 and 2023, \$448,928.51 was provided through Burlington's Plumbing Permit Fee Grant Program.</p> <p>Between 2014 and 2023, a total of 1,321 subsidies were provided through Halton Region's Enhanced Basement Flooding Prevention Subsidy Program totaling \$2,542,736. An additional 1,170 homes participated in Halton Region's Targeted Downspout Disconnection Program which ran between 2016 and 2019.⁴</p> <p>The City also continued to promote additional programs including:</p> <ul style="list-style-type: none"> - Home Efficiency Rebate Program - Home Winterproofing Program
<p>4:5: Enhance existing policies, programs and education programming for private stormwater management practices</p> <ul style="list-style-type: none"> - Encourage increased permeability on public and private sites - Continue existing program to encourage property owners to remove stormwater from the wastewater system - Encourage ongoing inspection and maintenance of potential flood risks on property 	<p>In 2023, Burlington City Council approved the Drainage By-law Amendment which provides revisions to definitions and policy to prohibit the obstruction of any drain or watercourse and regulate the altering, relaying or repairing of private drains within the City of Burlington (report ES-27-23).</p> <p>As noted under action 4-2, the City continues to promote what residents can do on their property to Manage Rain Where it Falls through webinars and through promotion of Conservation Halton's Healthy Neighboursheds series as well as the Take Action Burlington blog.</p> <p>As noted under action 2-4, the Plains Road protected bikeway project was completed in 2023 and includes the installation of a rain garden at the intersection of Howard Road and Plains Road West, featuring 18 new trees and a variety of different grass species and flowers.</p>

⁴ This Data was provided by The Regional Municipality of Halton and the Region assumes no responsibility or liability for its use or accuracy.

Action/Status/Staff Lead(s)	2023 Updates/ Year 2
<p>Ongoing/continuous improvement</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Stormwater Engineer, Development, Eng. Services</p>	

Theme 5: Strong and Resilient Economy

Agriculture

Goal: Support agricultural community in preparing for climate change.

Indicator: TBD through the Agricultural Action Plan. Target: TBD.

Action/Status/Staff Lead(s)	2023 Updates
<p>5-1: Pursue approval to develop a Burlington Agricultural Action Plan that includes a climate lens and considers opportunities to complement partner agency initiatives. Consider actions such as:</p> <ul style="list-style-type: none"> - Supporting the agricultural community in implementing best management practices including improvements to rural drainage - Enhancing monitoring of, and implementing projects to improve water quality - Researching how climate change will impact food crops and other agricultural products and potential opportunities for new crops - Flood management and emergency response planning for livestock 	<p>“Develop a Burlington Agricultural Plan with a climate lens” was also identified as an action under Focus Area 3 of 2022-2026 Burlington’s Plan – From Vision to Focus.</p> <p>The Burlington Agricultural and Rural Affairs Advisory Committee (BARAAC) work plan deliverables for 2023 supportive of this action included:</p> <ul style="list-style-type: none"> - Host a 2021 Census of Agriculture workshop (hosted on Apr. 19, 2023); - Support the preparation of a “State of Agriculture” staff report summarizing the 2021 Census of Agriculture data relevant to the City of Burlington; and - Identify any rural-specific needs that could be flagged for annual City budget consideration in November (2024 budget and onwards). <p>BARAAC formed a “State of Agriculture” subcommittee and participated in Food for Feedback on Sept. 16, 2023, to promote local agriculture and to conduct pre-engagement for the Agricultural</p>

Action/Status/Staff Lead(s)	2023 Updates
<p>- Assessing the cumulative effects of non-agricultural development uses in prime agricultural areas, with respect to preserving agricultural system integrity</p> <p>Underway but additional funding will be required</p> <p>Completion date: 3-5 years (end of 2027 - V2F states Q4 2025)</p> <p>City lead: Senior Planner, Policy, Community Planning</p>	<p>Action Plan. The subcommittee has determined a set of baseline metrics that should be monitored through the State of Agriculture Report, based on a back casting exercise.</p>
<p>5-2: Expand the opportunities to support local food production across the City of Burlington (such as community gardens, rooftop gardens, backyard gardening, etc.)</p> <p>Ongoing/continuous improvement</p> <p>Completion date: Ongoing</p> <p>City lead: Senior Manager, Community Development, RCC</p>	<p>The community garden program currently has an accommodation rate of 56% for garden applicants, with demand far exceeding existing supply and capacity. Although the number of plots has increased 60% over the past 10 years, the program continues to be supported by one dedicated staff (RCC-06-23). A budget request was submitted to the City’s Strategy and Risk Team in 2023 and will be prioritized in future budgets.</p> <p>In 2021, staff updated the Zoning Bylaw to allow food gardens on any property, private or public removing zoning barriers to residential, institutional, and commercial property where people would like to have a food garden. The goal is to increase the accommodation rate of garden applicants from the current 56% to 65% by 2028 through both City’s community garden program and partnership with private ones. The Live and Play Plan will provide guidance on this community need compared to others and the available land for this type of use.</p>

Local Economy

Goal: Support and develop resilient local supply chains to help withstand impacts associated with extreme climate events outside of Burlington

Indicator: Number of new local supply chain partners. Target: 10 by 2032.

Indicator: Number of new products piloted. Target: 10 by 2032

Action/Status/Staff Lead(s)	2023 Updates/Year 2
<p>5-3: Assess the feasibility of sourcing and providing preference to local suppliers in contracts to increase resilience with supply chain disruptions</p> <p>Underway</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Manager, Innovation and Entrepreneurship, Burlington Economic Development (BED)</p>	<p>Burlington Economic Development's Foreign Direct Investment Strategy is focused on industries that can enhance supply chain resilience. Recent example includes the subsidiary of Cultivated B, that collaborates with economic and governmental institutions to advance scalable alternative protein production and cellular agriculture technologies, with operations spanning research and development in Germany and manufacturing in Canada, contributing to increased resilience in supply chain disruptions by diversifying protein sources and fostering innovation in food production.</p> <p>In 2023, the Burlington Chamber of Commerce and Burlington Economic Development hosted the Green Economy Symposium featuring discussions on cellular agriculture and advancements in the steel industry towards greener supply chain options, underscoring the importance of sourcing from and providing preference to local suppliers within industries that contribute to the green economy.</p>
<p>5-4: Investigate the feasibility to develop a business innovation ecosystem where locally developed products can be tested to encourage the development of local supply chains and innovative products</p> <p>Underway</p> <p>Completion date: 3-5 years (end of 2027)</p> <p>City lead: Manager, Innovation and Entrepreneurship, BED</p>	<p>TechPlace continues to work with emerging cleantech companies, actively promoting and strategically nominating them for awards and recognition. Eight local businesses have been awarded the i.d.e.a. Fund, a program supporting the development of green products and technologies in southern Ontario through non-repayable grants and business advisory services.</p> <p>Discussions are beginning with local development and home builder groups to introduce them to vetted local cleantech companies for collaboration in efforts to foster partnerships and potentially develop local supply chains for innovative products.</p> <p>Initiating discussions with Hamilton's Innovation Factory to leverage their programming, including CITM (The Centre for Integrated Transportation and Mobility), aim to expedite the growth and commercialization of integrated transportation and mobility innovations.</p> <p>The collaboration with Mohawk College, especially with Centre for Climate Change Management, and initiatives like Burlington Day at Mohawk and office hours at TechPlace, foster an environment conducive to testing and developing locally developed products.</p>