

2023 Climate Action Progress Report

ISSUE

The City of Saskatoon (City) is committed to climate action as a member of the Global Covenant of Mayors for Climate & Energy (GCoM). The City's current Climate Action Plan consists of two frameworks: [The Low Emissions Community Plan](#) (LEC Plan) and the [Corporate Climate Adaptation Strategy](#) (Adaptation Strategy). The *2023 Climate Action Progress Report* (2023 CAPR) presents updated greenhouse gas (GHG) inventories and recent progress on the actions recommended in the LEC Plan and Adaptation Strategy. For the first time, the 2023 CAPR also includes information on the Green Network to recognize the importance of nature-based climate solutions in the City's climate action planning (Appendix 1).

BACKGROUND

The [2022-2025 Strategic Plan](#) includes Environmental Sustainability as a pillar of a well-rounded Strategic Plan. Climate action progress reporting has been a key mechanism for tracking and reporting progress on the City's environmental sustainability initiatives, and the 2023 CAPR marks the third update since the LEC Plan and Adaptation Strategy were adopted in 2019. The most recent update – [Climate Action Plan: Progress Report 2021](#) – was received by City Council on November 21, 2022.

Related plans, strategies, policies, etc. include:

- [Wetland Policy C09-041](#) (2013)
- [Environmental Policy C02-036](#) (2015)
- [Active Transportation Plan](#) (2016)
- [Contractor Environmental Guidelines](#) (2019)
- [Triple Bottom Line Policy C08-001](#) (2020)
- [Solid Waste Reduction & Diversion Plan](#) (2021)
- [Urban Forest Management Plan](#) (2021)
- [Pathway to a Sustainable Urban Forest: Implementation of the Urban Forest Management Plan](#) (2022)
- [High Performance Civic Building Policy C08-002](#) (2022)
- [Water Conservation Strategy](#) (2022)
- [Alternative Currents: An Implementation Plan for Saskatoon's Renewable and Low-Emission Energy Transition](#) (2022)
- [2024-2025 Climate Budget](#) (2023)

CURRENT STATUS

The 2023 CAPR provides progress updates toward the City's *Low Emissions Community Plan*, *Corporate Climate Adaptation Strategy*, and for the first time, *Pathways for an Integrated Green Network*. The implementation and quantification of nature-based climate solutions will be key to achieving the net-zero emissions target of the new Climate Action Plan, as well as playing a critical role in preparing the community for a changing climate. This work is being guided by the City's [Green](#)

[Infrastructure Strategy](#) (2020) and corresponding implementation plan, [Pathways for an Integrated Green Network](#) (2022).

Progress Toward GHG Emissions Reduction (Climate Mitigation) Targets

Community-wide emissions were 3,371,700 tonnes CO₂e in 2023, a 12% reduction from the 2014 baseline of 3,852,200 tonnes CO₂e. Emissions decreased in all community sectors except the Agriculture, Forestry, and Other Land Use (AFOLU) sector, which includes emissions relating to livestock and nutrient management activities within the city boundary. Although community-wide emissions reductions are encouraging, emissions reductions were slightly short of the LEC Plan's 2023 interim target of 3,274,400 tonnes CO₂e by 2023 (15% reduction from 2014 baseline).

Per capita community emissions also improved over the 2014 to 2023 period, falling 27% from 15.6 tonnes CO₂e per person in 2014, to 11.4 tonnes CO₂e per person in 2023.

Corporate (local government) emissions were 207,400 tonnes CO₂e in 2023, a 7% reduction from the 2014 baseline of 222,200 tonnes CO₂e. The decrease was driven by emissions reductions in the Buildings, Streetlighting, and Water and Wastewater sectors. Reductions in corporate emissions; however, fall short of the 2023 interim target of 135,000 tonnes CO₂e or 40% reduction relative to the 2014 baseline.

Climate mitigation highlights from the 2023 CAPR include:

- By the end of 2023, 100 energy efficiency retrofits were completed through the Home Energy Loan Program (HELP), including 6 deep energy retrofits realizing >50% energy reduction. Annual estimated savings through HELP are 200 tonnes CO₂e.
- The City's fleet includes 10 hybrid vehicles and 5 electric vehicles (EVs). To support the City's EV fleet, there are currently 15 charging ports installed at civic facilities.
- A total of 39,000 tonnes of material was diverted through all the City's recycling and organics programs in 2023, contributing to a 33% waste diversion rate from the City's landfill.
- Since 2021, irrigation pilots have been conducted in 46 test sites in municipal parks and 7 sports fields, resulting in annual savings of 56 million litres of water, \$163,000 and 25 tonnes CO₂e. A spray pad efficiency project was also conducted at 2 spray pads, resulting in annual savings of 6 million litres of water, \$24,000 and 3 tonnes CO₂e.
- Work continued on the College Corridor Plan, along with the development of land use plans for five additional corridor plan areas. The goal of Corridor Planning is to transform major streets (corridors) into places for people, by creating a framework for future development near these corridors. This approach to planning has environmental benefits from more walkable neighbourhoods and improved access to public transit.
- Landfill gas (LFG) projects completed in 2023 include the addition of a second blower to improve system reliability and increase uptime, and the installation of a second smaller flare to allow for increased LFG destruction. The Landfill Gas

Collection and Power Generation System was responsible for reducing overall emissions from the landfill by approximately 60,000 tonnes CO₂e in 2023.

A comprehensive update on LEC Plan actions is included in *Appendix 1: 2023 Climate Action Progress Report*. Summaries of the actions lagging behind the LEC Plan timeframe are provided in Table 1.

Table 1. Actions behind the LEC Plan timeframe.

Action [and Planned Start Date]	Update
1. Apply energy efficiency standards (build to Passive House) to all new municipal buildings. [2020]	Started. Fire Hall #5 (commissioned in 2023) received LEED Certified certification and nine Optimize Energy Performance points.
3. Upgrade plugged appliances and energy conservation behaviours in municipal buildings. [2020]	Started. HVAC, lighting, and water efficiency building operator training completed in 2023.
11. Incentivize and later mandate ICI owners and operators to perform deep energy retrofits. [2020]	Started. A feasibility study for an Energy Efficiency/Generation Project for the ICI sector was completed in 2023.
35. Install a CHP facility at St. Paul's Hospital. [2020]	Project cancelled in 2020.
37. Construct a hydropower plant at the weir. [2020]	Not started. The hydropower project was investigated and found to not be economically feasible.
38. Install renewable energy storage over time. [2023]	Not started. The Dundonald Avenue Solar Farm, expected to be in operation in Q4 2025, has been designed to allow for the addition of a Battery Energy Storage System.

Building Resilience to a Changing Climate

As Saskatoon's climate continues to change, we can expect more severe storms, unpredictable rainfall, more sudden temperature changes, more very hot days in the summer, and more days with poor air quality as wildfires increase across Canada.

The Adaptation Strategy – which focuses on the municipality's services, staff, assets, and operations – guides the City to proactively prepare for the impacts of climate change. Climate adaptation highlights from the 2023 CAPR include the completion of dry ponds in W. W. Ashley Park, Churchill Park, and Weaver Park that reduce flood risk associated with more frequent and intense storms in those flood-prone areas of the city. The City's Emergency Management Organization (EMO) is also responding to the impacts of climate change through their Extreme Heat & Air Quality Emergency Response Plan, which is a coordinated response that provides residents with access to cooling locations, outreach services, wellness checks, and water distribution during extreme heat. Saskatoon EMO has formal partnerships with over 30 community organizations to work together to respond to Extreme Heat and Extreme Cold.

As part of the updated Climate Action Plan – scheduled for completion in 2025 – work is underway to expand climate resilience to the entire community of Saskatoon.

Climate adaptation highlights from the 2023 CAPR include:

- The Climate Adaptation Program was established with approved funding for a full-time resource in 2023 and is accelerating work on climate adaptation and resilience actions.
- Departments with outdoor staff have implemented heat, cold, and air quality procedures to help mitigate the risk of working in unfavorable conditions.
- The City of Saskatoon Crisis Communication Plan is complete and part of normal operations.
- A Corporate Asset Management Reporting Template was developed and considers risks related to climate change and resilience planning for future conditions. Work is ongoing to update existing asset management plans using this template.

A comprehensive update on the Adaptation Strategy initiatives is included in *Appendix 1: 2023 Climate Action Progress Report*. Summaries of the initiatives lagging behind the Adaptation Strategy timeframe are provided in Table 2.

Table 2. Initiatives behind the Corporate Climate Adaptation Strategy timeframe.

Initiative [and Planned Start Date]	Update
A02. Create internal training sessions that can be delivered on demand to support workgroups as they build climate change impact understanding and adaptation innovation capacity. [2020-21]	Started. Work began to develop internal training modules on climate change impacts in 2023 and is expected to be completed in 2024.
A03. Create internal processes and a dashboard for climate adaptation strategy key performance indicator tracking. Create a digital historical and future climate data hub to support reliable internal use and updating. [2020-21]	Started. The City recently launched a new online platform to communicate progress on climate actions. The new Climate Dashboard is focused on climate mitigation actions; however, climate adaptation actions are expected to be added in a later phase.
B04. Create and maintain a list of existing programs that fund resiliency building projects (include application process and requirements). [2020-21]	Started. Climate Action Program was established with approved operating funding in 2023. Monitoring and seeking funding opportunities for resilience projects is incorporated into this operating program.
K24. Develop and document processes that allow future climate projections to be considered in the design of new and upgraded corporate assets. [2020-21]	Started. A Corporate Asset Management Reporting Template has been developed and includes consideration of climate change-related risks and resilience planning for future climate conditions.

The Green Network in Climate Action

Nature-based climate solutions incorporate tools such as restoration, conservation, and management of wetlands, grasslands, and the urban forest to mitigate and adapt to the

effects of climate change while supporting biodiversity. Local actions are defined in Saskatoon's Green Infrastructure Strategy implementation plan, *Pathways for an Integrated Green Network* (Green Pathways), in support of Saskatoon's green network.

Green Pathways highlights from the 2023 CAPR include:

- City Council approved development of Natural Area Management Plans for the Small Swale and Richard St. Barbe Baker Afforestation Area (RSBBAA). Utilizing Natural Infrastructure Funding, a design was created for plantings and pathway improvements at RSBBAA.
- The City's park upgrade program was reviewed for opportunities to incorporate additional green network considerations in its site prioritization process.
- *Pathway to a Sustainable Urban Forest: Implementation of the Urban Forest Management Plan* was approved in 2022. The actions in the Plan support improved planning processes, increased canopy cover, species diversity, community involvement, education, and enhanced maintenance and tree protection.
- The Environmental Cash Grant program includes dedicated mill-rate funding of \$10,000/year for community-led activities to support protection and enhancement of Saskatoon's green network was initiated.
- Funding was secured to implement Food Forest Pilots in Leif Erickson and Boughton Parks, leveraging Natural Infrastructure Funding. In 2022-23, work focused on planning, design, and engagement in preparation for 2024-25 installations.

A comprehensive update on Green Pathways initiatives is included in *Appendix 1: 2023 Climate Action Progress Report*. Summaries of the initiatives lagging behind the Green Pathways timeframe are provided in Table 3. Green Pathways proposes a start date for each phase (P1 – Initiation, P2 – Development, P3 – Implementation, and P4 – Operations), and progress is considered lagging if the action has not reached the planned phase outlined in that strategy.

Table 3. Initiatives behind the Green Pathways timeframe.

Initiative [and Planned Phase in 2023]	Update [and Actual Phase in 2023]
1.3 Create partnerships to support Indigenous land management. [P2]	Started [P1]. Engagement and relationship building with Indigenous communities was carried out as a preliminary step to the Traditional Land Use and Knowledge Assessment project, followed by the formalization of the work scope and plan.
1.5 Expand the Naturalized Park Program. [P2]	Started [P2]. Several parks and green spaces were identified for naturalization improvements as part of Saskatoon's Natural Infrastructure Fund projects. However, a process and policy framework to expand the City's naturalized park program has not been developed.

3.1.2 Corporate education and training. [P1]	Not started. Content and materials for a public-facing green network awareness campaign are in development, which could be included in future education and training for City staff.
3.2.1 Low impact development projects. [P1]	Not Started. A Business Plan Option to support this action was submitted to the 2024-25 Multi-Year Budget for consideration but was not funded.
3.3.1 Bird-friendly civic guidelines or standards. [P1]	Not Started. A Business Plan Option to explore Bird Friendly and Dark Sky guidelines and standards has been drafted.
4.1.1 Green network awareness campaign. [P3/P4]	Started [P2]. A communications strategy and corresponding materials (illustrations, photos) have been developed to support a future awareness campaign focused on key messages about the green network.
4.1.2 Natural Areas education. [P2]	Not Started. A Business Plan Option to support this action was submitted to the 2022-23 Multi-Year Budget for consideration but was not funded. Opportunities to progress this work through the Green Network program are being considered.
4.3.2 Community stewardship program. [P1]	Not started. A community stewardship approach will be explored after completion of the Food Forest Pilot.
5.2.1 Sustainable Food Action Plan. [P2]	Not Started. A Business Plan Option was submitted to the 2024-25 Multi-Year Budget for consideration but was not funded at that time.

DISCUSSION/ANALYSIS

The 2023 CAPR is the final progress update based on the 2019 LEC Plan and 2019 Adaptation Strategy. An updated Climate Action Plan – scheduled for completion in 2025 – will identify instruments and measures needed to achieve the City’s new net-zero target, and outline climate projections, risks, and actions that support community and corporate resilience to anticipated climate change. An update on *Pathways for an Integrated Green Network* is anticipated in 2027.

FINANCIAL IMPLICATIONS

There are no financial implications resulting directly from the *2023 Climate Action Progress Report*. Funding for various climate initiatives was approved by City Council during previous Business Plan and Budget deliberations and are referenced, where applicable, in the 2023 CAPR. Future funding for climate actions will continue to be explored and reported through the 2026-2027 Climate Budget.

OTHER IMPLICATIONS

Actions being undertaken through the Climate Action and Green Network Programs provide significant benefits to Saskatoon including:

- Direct cost savings for the City and the community associated with energy and water efficiency projects;
- Support for a diverse and resilient economy;
- Employment opportunities resulting from growth in the low-carbon economy;
- Lowered financial risk to the City by building for resiliency;
- Improved health and safety benefits including flood mitigation and food production;
- Improved social and cultural benefits including recreation and ceremony;
- Improved environmental health including habitat and biodiversity; and
- Improved equity and quality of life.

The risks of taking little or no action described in the plans include:

- Greater long-term costs;
- Less resilient energy system and infrastructure;
- More severe impacts from climate change;
- Missed opportunity to benefit from the low-carbon economy; and
- Missing the City's GHG reduction targets.

NEXT STEPS

Administration will continue to work on initiatives outlined within Green Pathways, and the Climate Action Plan strategies and implementation plans, including the planned update to the Climate Action Plan in 2025. The next *Climate Action Progress Report* will occur in 2026.

APPENDIX

1. 2023 Climate Action Progress Report

Report Approval

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