



REQUEST FOR DECISION

MEETING DATE: May 15, 2023

TITLE: Climate Change Implementation Plan

DIVISION: Planning & Infrastructure

SUMMARY:

As part of the 2022-25 Strategic Plan and 2023-25 Corporate Plan, Council supported several actions from the Spruce Grove's Climate Change Action Plan (CCAP) and committed to further review of implementation actions. Indirectly, recent Council RFDs have also support climate action.

The impact of all Council decisions including minor enhancements in **bold text** are projected to achieve about 4 per cent++ of aspirational Greenhouse Gas (GHG) targets and some modest advances in adaptation resilience actions. While the City is falling short of the aspirational targets in the Climate Change Action Plan, it is signaling a start of implementation action including some strategic shifts. This report is an update to Council on Administration's progress on implementation.

PROPOSED MOTION:

A motion is not required.

BACKGROUND / ANALYSIS:

In 2020-21, the City engaged with citizens and conducted research to create the Climate Change Action Plan. It included 99 actions with prioritization of "very high", "high" and "moderate".

On May 9, 2022, the report was accepted by Council as information. Council supported aspirational targets towards:

- the adoption of the recommended adaptation actions as outlined in the Climate Change Action Plan; and
- reduction of Spruce Grove's Green House Gas Emissions along the "Spruce Grove" Path.

The Climate Change Action Plan helped to answer these two main questions:

- How can the City help prepare the community for the anticipated effects of climate change?
- How can the City reduce its greenhouse gas emissions and help the community do the same?

The value of this plan is to create momentum and kick start action in the near-term, laying the foundations for ramping up climate actions in the longer-term. It will demonstrate that the City is acting on its aspirational carbon reduction targets and inspire internal climate champions within the City to create a *culture shift* toward considering climate action in daily work and engaging community partners over the longer-term.

Regional Action/Existing Advocacy Opportunities

On June 10, 2021, the Edmonton Metropolitan Region Board (EMRB) unanimously approved a member motion to work with regional CAOs to address the following:

1. *Identify the steps needed to coordinate regional standards for climate resilient communities and building energy efficiency, and coordinate approaches to support job creation through energy efficiency and resilient construction and retrofits;*
2. *Explore the concept of a region-wide carbon budget and climate risk assessment and how the board could incorporate these into the Growth Plan review and implementation plans, so the region can align to Canada's commitment to achieve net-zero emissions by 2050.*

A Working Group has formed with the mandate to support the Edmonton Metropolitan Region Climate Risk and Vulnerability Assessment (EMR CRVA). This work began this Spring and is represented by the City's Senior Environmental Advisor. A final report is expected by this working group by December 2023 for consideration by the EMRB. Collaboration and resource sharing within the region also is an opportunity but also requires capacity.

Given the current environmental capacity of the City, it also underlines that the City requires assistance from the federal and provincial governments to meet net-zero and adaptation goals. On April 19, 2023, the Government of Alberta released the *Alberta Emissions Reduction and Energy Development Plan* with, for the first time, a goal of reaching net zero by 2050 - the target that Canada has committed to achieve and aligning with the CCAP Spruce Grove Path. This could, perhaps, be an avenue for additional support as the Province is signaling

additional consultation.

Key Points of Implementation Proposal

Below is a summary of action that builds on Spruce Grove's commitments related to climate resilience and GHG mitigation from the 2023-25 Corporate Plan and 2022-25 Strategic Plan.

Proposed short-term priority actions are highlighted in **bold text**:

- Energy Efficiency and Supply: Develop the Clean Energy Improvement Program, explore a City Strategy, and plan renewable power for the City. **Explore linkages to the Spruce Grove Library's "Empower Me" Pop Ups. Make it the norm when City facility assets require replacement that energy efficiency is one of the goals.**
- Waste Reduction: Educate citizens on food scraps and wasted food diversion, review small black bin fee reduction, and distribute over 1,000 kitchen compost bins. **Review possible carbon reduction impacts of Alberta's new Extended Producer Responsibility regulation as part of the next 2025 Waste Audit.**
- Natural Assets: Identify, enhance, and protect natural infrastructure, focusing on Fenwyck Fen and Atim Creek areas as key priorities for carbon sinks and adaptation-related natural capital. Complete further natural asset analysis; explore increasing the climate resilient tree canopy.
- Resilience: Develop adaptation measures to support social wellbeing, the less fortunate, recreation and stormwater infrastructure as highlighted in the Strategic Plan. Create an education program on climate change resilience.
- Low Carbon Transportation: Expand transit, active transportation corridors and consider electrification; the two inter-municipal trails from Spruce Grove to Stony Plain are the immediate priority. **Reduce idling through signage** and adaptive traffic signals such as the inter-connect between traffic signals and CN Rail controller. Develop an EV Strategy with charging infrastructure and expanded fleet, including a jumpstart installment of 17 stations plus an EV Zamboni. **Promote connections to regional hydrogen development and distribution systems through Edmonton Global.**
- Local Agriculture: Support community gardens, locally produced agriculture programs to provide food options through farmer's markets, edible trees, and pollinator gardens.
- Land-use Planning: Continue to work through land use planning and districting to support increased development density where possible, such as the City Centre Area Redevelopment Plan.

- Information Management: Support **equipment, information, and data management** for GHGs, weather and air quality.
- Capacity Building: Explore increased capacity by building **staff competencies; increase understanding in-house knowledge, citizen engagement** like the Youth Advisory Committee, **partnerships, grant opportunities; and explore utilizing a Reserve Fund** for future projects.

OPTIONS / ALTERNATIVES:

- Strengthen advocacy at the regional, provincial, and federal levels on climate change action. Review additional opportunities to align on climate adaptation resilience with regional partners in 2023-4 through the EMRB including fire and emergency-related weather events.
- In the near term, request Administration to undertake additional analysis of “very/high priority actions” under the Road Transportation (Vehicles) and Homes Categories of the Climate Change Action Plan. Together these categories represent 75 per cent of estimated City GHG emissions. There are 10 “very high or high” priorities under low carbon homes and transportation that are not being acted upon because they were not determined to be low hanging fruit (e.g., new voluntary sustainability development checklist, encourage above-code new construction for new builds, etc.).
- The new Municipal Development Plan (MDP) may also have a cascading, over-arching impact on the City’s ability to adapt and manage GHGs. Ensure the MDP and the Climate Change Action Plan are aligned.

CONSULTATION / ENGAGEMENT:

The project governance structure included consultations with a Steering Committee, Organizational Leaders Group (Directors), and a staff workshop to engage staff in determining possible implementation actions.

IMPLEMENTATION / COMMUNICATION:

Communication

External - an extensive stakeholder and citizen engagement process took place to create the original Climate Change Action Plan (CCAP). The implementation plan is the work of Administration to operationalize the CCAP. Currently, external communication on the CCAP can be found on the Spruce Grove website at <https://www.sprucegrove.org/government/reports-plans/climate-change-action>

A progress report on the projected achievement of 4 per cent++ percent of short-term aspirational GHG goals could also be added to the website to promote transparency.

Internal - the approved implementation plan will be shared with staff on the HUB.

Decision-making Criteria by Administration

Over 2022, the CCAP was reviewed by Administration, and it was determined that although CCAP actions have undergone comprehensive cost-benefit analysis using criteria of effectiveness, co-benefits, equity, flexibility, upfront and ongoing costs, negative side effects, feasibility, and acceptability, current City organizational capacity necessitated placing the highest priority on easy wins in the short-term.

Capacity Gaps

The various recommended actions of the CCAP would require additional financial investment, and such investments are evidenced in other similar mid-sized cities in Alberta as well as across the Country.

It is imperative to look at increasing our environmental management capacity to levels seen in other similarly sized municipalities as there is currently only a single employee to address all the work in this portfolio. As a reference, when comparing Spruce Grove to Strathcona County, St. Albert, Leduc, Canmore, Grand Prairie, Airdrie, and Okotoks - most municipalities average one environmental position for every 10,000 - 12,000 residents. Spruce Grove currently has one position for every 38,000 residents. Business cases have been developed for review of two additional FTEs (to be reviewed in 2024 and 2025).

IMPACTS:

Table 1 Spruce Grove GHG Emission Sources in 2020

| | Source | Description | Estimated City GHG Emissions in 2020 |
|-----------|-----------------------|---|--------------------------------------|
| Community | Road Transportation | Vehicles | 44.6 |
| | Homes | Energy use in homes | 29.4% |
| | Businesses & Industry | Energy use in business and industrial premises | 21.8% |
| | Solid Waste | Landfilled organic waste | 2.4% |
| Municipal | City Buildings | Energy for city buildings | 1.2% |
| | City Fleet | Fuel and energy for city vehicles and equipment | 0.2% |
| | Lights & Signs | Streetlights, signs, etc. | 0.2% |
| | Water & Sewage | Water and sewage pumping | 0.2% |

Spruce Grove can expect to experience hotter summers, warmer winters, more extreme weather, and water stress. Driven by these changes, high priority risks to Spruce Grove include multi-year drought, heatwaves, freezing rain and hailstorms (CCAP, pp. 15).

Planned adaptation actions will increase our City's resilience to the physical effects of climate change. Mitigation actions in this plan are estimated to deliver about 4 per cent++ of the required GHG emissions savings required to stay within the 2022-2025 carbon targets and 2 per cent of the required GHG emissions over the Climate Change Action Plan timeline of 2022-2033.

FINANCIAL IMPLICATIONS:

By in large, the proposed implementation plan will have minimal net new impact on existing budgets. No additional funds are being requested through this RFD.

The City has successfully worked on EV Grants for \$200,000 and was recently awarded a \$78,500 Grant in February 2023 from the Municipal Climate Change Action Centre for a Climate Resilience Education Pilot kick-start. Likewise, a grant will be sought to cover administrative costs of implementing the Clean Energy Improvement Program. A review of additional environmental grant opportunities will also be completed in 2023.

However, due to organizational capacity constraints and requirements for matching dollars, many environmental projects are, in reality, more opportunistic rather than planned. Thus, it is proposed to leverage the existing asset lifecycle plans and associated reserve funds for renewables, energy efficient assets for facilities (systems and components) and fleet and consider exploring a possible "Climate" Reserve Fund in future years. This reflects a measured approach to ramp up to an expanded scope that could potentially include a Climate Reserve Fund that could be augmented by other possible revenue sources such as Extended Producer Responsibility savings or by cycling back energy cost savings.