

**OUR CLIMATE
FUTURE**
climate change action plan



Spruce Grove Climate Change Implementation Plan

2023

Overview

- Climate Change Action Plan - Background
- Implementation Review Process
- Implementation Plan
- Recommendations/Next Steps

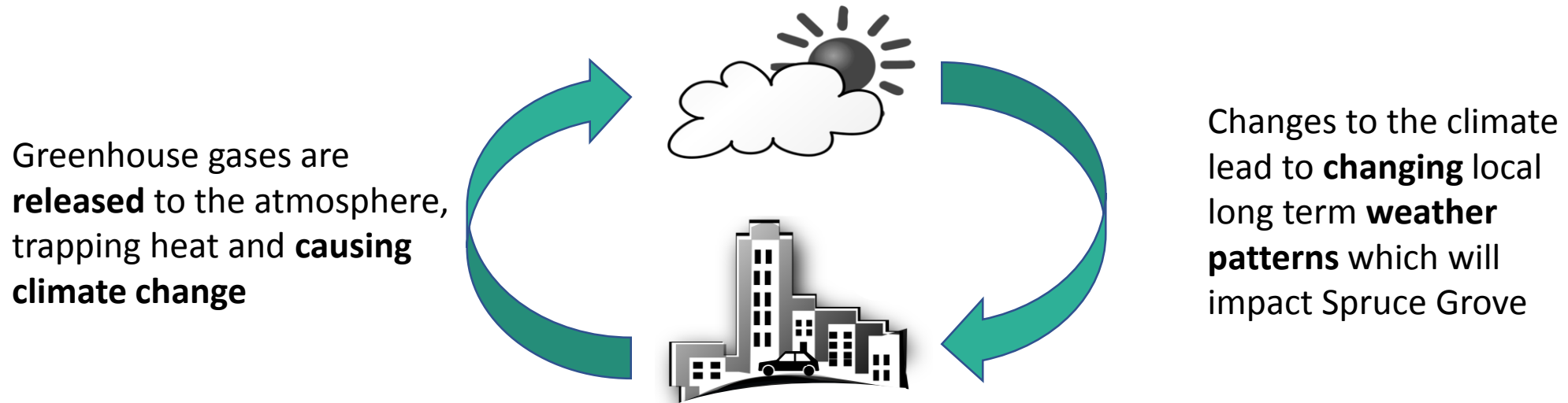
Background

Climate Change Action Plan 2022

- Over 1.5 years of preparation and public engagement
- Helped to answer two main questions:
 1. How can the City help prepare the community for predicted changes to local weather patterns?
 2. How can the City reduce its greenhouse gas emissions and help the community do the same?

Scope - Climate Change Action Plan

To address the two different components of climate change planning:



Climate Change Mitigation:
Reducing local greenhouse gas emissions

Climate Change Adaptation:
Preparing for predicted changes to local weather patterns

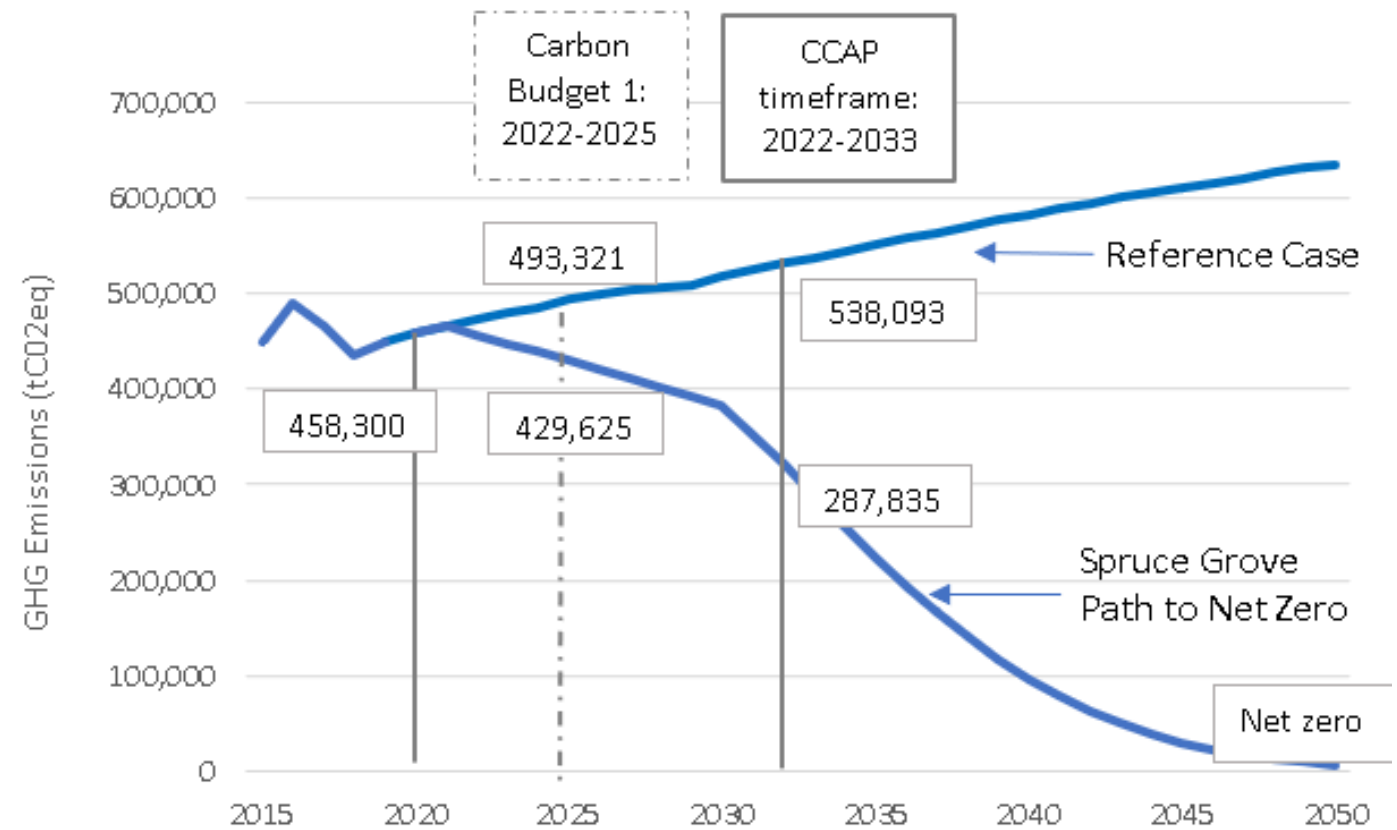
Background

- May 9, 2022 - Report 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 (*see next slide**)

Spruce Grove's Path to Net-Zero Community- Wide Emissions: Bending the Emissions Curve



Spruce Grove's Path to Net-zero Community-wide Emissions—Bending the Emissions Curve

Key Shifts for the Future

	Sector Name	Description	Estimated City GHG Emissions in 2020	
Community	Community Transportation & Land Use	Vehicles	45%	98%
	Homes	Energy use in homes	30%	
	Businesses + Industry	Energy use in businesses	21%	
	Solid Waste	Landfilled organic waste	3%	
Municipality	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%	

Climate Change Action Plan - Background

- CCAP identifies recommended 99 actions with a priority rating for each action over the next twelve years.
- **Implementation began with several actions planned or in partial development in the 2022-25 COSG Strategic Plan/Corporate Plan. Most are adaptation actions.**

GOAL 8: The City, residents, and infrastructure are more resilient to the effects of climate change.

OBJECTIVE	ACTION	PRIORITY YEAR
a. Incorporate environmental considerations into infrastructure investments and existing programs and services.	<ol style="list-style-type: none">1. Integrate environmental considerations into decisions and approvals relating to growth, planning, infrastructure, transportation, and development.2. Develop a formal strategy for the City's approach to electric vehicles that considers the economic benefits of charging stations, the City's approach to electric vehicles within its fleet, and opportunities to maximize grant funding.	<div>2024</div> <div>2022/23</div>
b. Assess the recommendations in the Climate Change Action Plan.	<ol style="list-style-type: none">1. Review recommendations from the City's Climate Change Action Plan and develop a subsequent implementation plan for specific recommendations.	2022/23
c. Enable residents and	<ol style="list-style-type: none">1. Provide recommendations on waste management options.	2022/23

OBJECTIVE	ACTION	PRIORITY YEAR
a. Provide educational resources to residents to help them prepare for the effects of climate change.	<ol style="list-style-type: none">1. Create a communications plan that provides information to residents on home improvements that improve resilience.	2024
b. Improve resilience of water management and natural infrastructure.	<ol style="list-style-type: none">1. Report on annual inspections, maintenance, and management of the City's sanitary, water, and stormwater systems.	2024
	<ol style="list-style-type: none">2. Update flood mapping and the City's Stormwater Plan to include anticipated climate change impacts.	2024
c. Offer City services to build climate resilience for residents.	<ol style="list-style-type: none">1. Continue working with the Winter Emergency Response Committee.	2024
	<ol style="list-style-type: none">2. Develop an education program for residents about local climate change impacts.	2024
	<ol style="list-style-type: none">3. Explore opportunities for indoor recreation during extreme heat or poor air quality times.	2024
	<ol style="list-style-type: none">4. Determine feasibility of providing real time updates of outdoor rinks and ice conditions.	2024

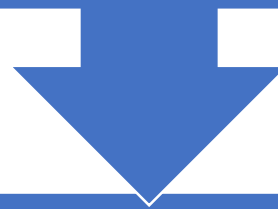
What is the Implementation Plan 2022-25?

The Implementation Plan is a tactical document to:

**Inform corporate
planning**

**Inform business case
development**

**Report back to
Council on targets**



Aspirational target =430 ktCo2eq in 2025

Current projected achievement: 4% ++

Implementation Plan

Scope

- Actions (mitigation, adaptation)
- Estimated budgets
- Accountabilities
- Community/internal focus
- Short-term (2022-25)

Metrics of Success

- 1) To balance City-wide action between an internal corporate focus and external community focus.
- 2) To propel projects with a high degree of corporate buy-in or work already underway forward (“easy wins”).
- 3) The degree to which the aspirational carbon target was met (430 ktCo₂eq by 2025) (this would be challenging and that is why the targets were set as “aspirational”).

Deliverables/Timeline

Deliverable	Planned Completion Date
1) Draft project plan and approval	July
2) Begin drafting Implementation Plan	July/August
3) A Staff/Organizational Leadership Group workshop	October
4) Carbon reduction analysis	November-February
5) Finalize Implementation Plan	Feb-May

Implementation Plan Elements

Energy efficiency

Waste reduction

Natural assets

Resilience

Low carbon transport

Local agriculture

Information/data

Land-use

Capacity

Actions

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Improve comfort and save energy with a new kind of financing from your Alberta municipality

- 1) Energy Efficiency: 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 assets require replacement that energy efficiency is one of the goals.

Actions

2) Waste Reduction: Educate on wasted food diversion, review small black bin fee reduction, and distribute over 1000 existing kitchen compost bins. **Review possible carbon reduction impacts of Alberta's new Extended Producer Responsibility regulation as part of the next 2025 Waste Audit.**

3) Natural assets: Identify, enhance and protect natural infrastructure, focusing on Fenwyck Fen and Atim Creek areas as key priorities for carbon sink and adaptation-related natural capital. Complete further natural asset analysis; explore increasing the climate resilient tree canopy.



Actions

4) Low Carbon Transportation: Expand transit, active transportation corridors; the two inter-municipal trails from Spruce Grove to Stony Plain are the immediate priority. **Reduce idling through educational signage** and traffic discouragement 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 EV stations plus an EV Zamboni and some fleet. **Promote connections to regional hydrogen development and distribution systems through Edmonton Global.**

Light-Duty ZEV Sales Mandate

- The Government of Canada introduced a sales mandate for **100% light-duty ZEV sales by 2035**. This translates to:
 - **2026** – 20% of sales and 5% of all light-duty vehicles (**1.4M total**)
 - **2030** – 60% of sales and 16% of all light-duty vehicles (**4.6M total**)
 - **2035** – 100% of sales and 40% of all light-duty vehicles (**12.4M total**)



Actions

5) Resilience: Develop adaptation measures to support social wellbeing, the less fortunate, recreation and water infrastructure as highlighted in the Strategic Plan. Create an education program on climate change resilience.

6) Local agriculture: Support the community garden, locally produced agriculture programs to provide food options (lower carbon footprint than those shipped in) through farmer's markets and pollinator gardens.

7) Information management: Support **equipment, information and data management for GHGs**, weather and air quality.

Actions

8) 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.

9) Capacity Building: Explore increased capacity by **building staff competencies, better understanding in-house knowledge, citizen engagement like the Youth Advisory Committee, partnerships, grant opportunities and utilizing a Reserve Fund for future projects.**

DYK: In the National Adaptation Strategy, there is a target that by 2027, 75 per cent of the members of professional associations (e.g., Engineers Canada, Canadian Institute of Planners) have the capacity to apply climate change adaptation tools and communicate the business case for adaptation measures.

Recommendations

- Strengthen advocacy at the provincial and federal levels on climate change action. Review additional opportunities to align on climate adaptation resilience with regional partners in 2023-24 through the EMRB.
- In the short-term, request Administration to undertake additional evaluation 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.
- 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.

