2025

# CLIMATE ACTION PLAN

## About the Project

The City of Saskatoon is updating its climate action strategies that guide how we'll reduce carbon pollution and prepare for the impacts of a changing climate. The update will build on previous strategies and consider what we learned from past engagement on topics related to zero-emission transportation, renewable energy, home building energy retrofit and efficiency programs, the green network, and water conservation.

Over the last year we engaged with various organizations across Saskatoon on how they, and those who they support, have been impacted by our changing climate. This summer we also engaged the community on the importance of climate action, the actions the City should take to reduce carbon pollution, and how we can better prepare for the impacts of a changing climate.

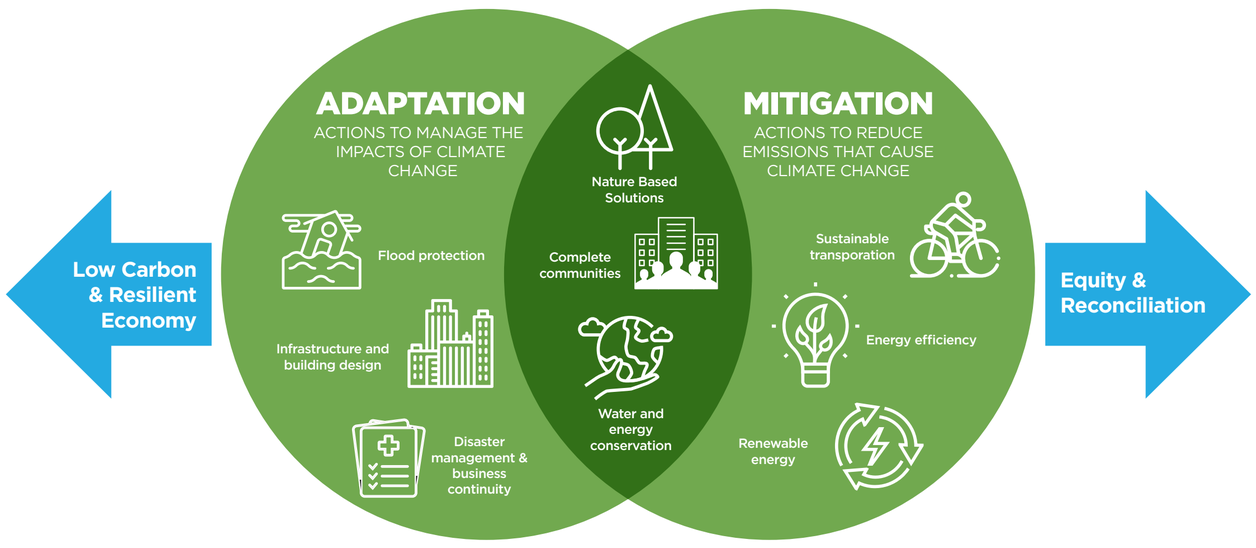
## What We Are Asking

During this event we invite you to review our proposed actions and provide your feedback on:

- How the City can prioritize our carbon reduction efforts
- Actions that align with your organization's efforts
- Potential impacts and/or benefits for the actions we are proposing
- Whether we are missing anything

## What is Climate Action?

Climate Action is a comprehensive approach to climate readiness that incorporates both adaptation and mitigation. Today we are focusing on mitigation actions.




*Climate Adaptation and Mitigation (Adapted from: ICLEI Canada, 2019)*

# REDUCING CARBON POLLUTION

**PREVIOUS TARGET**
**80% reduction by 2050**

**NEW TARGET**
**Net-zero by 2050**

*Net- zero means achieving net-zero carbon pollution by balancing emitted carbon pollution with emissions removal.*

## We can...

- Decrease natural gas consumption and enhance energy efficiency with **BETTER BUILDINGS**
- Decarbonize the grid through investment in low and zero-emission **ENERGY GENERATION**
- Support and make use of diverse **ZERO-EMISSION TRANSPORT** options
- Reduce landfill emissions through **WASTE REDUCTION** and diversion efforts
- **CONSERVE WATER** to reduce the energy associated with the treatment and pumping of water
- Conserve, enhance, and grow our **GREEN NETWORK** that act as carbon sinks
- Monitor the development of **CARBON REMOVAL** technologies

## These categories organize the City's action planning

### LEADING BY EXAMPLE

City Operations & Infrastructure


### COMMUNITY CLIMATE ACTION

Education | Collaboration | Incentives | Civic Services | Bylaws & Regulation

City of Saskatoon

Climate ACTION

saskatoon.ca/climateaction

# BETTER HOMES & BUILDINGS

BACKGROUND

**Buildings in Saskatoon primarily use natural gas for heating and electricity to power appliances, lights, and other systems that we use everyday. Natural gas and electricity used to heat and power homes and buildings is the largest source of carbon pollution in Saskatoon, making up 59% of community emissions.**

## How can we improve buildings in Saskatoon?

- Update ventilation, heating, and cooling systems to be more energy-efficient (furnaces, heat pumps, boilers, chillers, air handling units)
- Use energy-efficient lighting and controls (daylighting, occupancy sensors)
- Improve insulation and building envelope (insulation in walls and roof, windows, sealing, and weather stripping)
- Ensure appliances and equipment are energy efficient and use energy saving settings
- Train building operators to take an active role in building energy efficiency
- Adopt energy conservation behaviours at home and work
- Build compact neighbourhoods that require less space and resources per person

# Leading by Example

## City Administration Actions

### Completed Actions:

- High Performance Civic Building Policy for new construction
- Capture and use wastewater biogas for building heating
- Upgrading City buildings and street lighting to energy efficient LEDs

### What's Next?

- Deep retrofits to existing City buildings
- Civic Building Energy Management System
- BOMA Best Building Certification
- Feasibility study of district energy system

# BETTER HOMES & BUILDINGS

YOUR THOUGHTS

## Current and upcoming community initiatives

- Education Tools: Renovation Resources and Home Energy Map
- Loans to homeowners (and soon businesses) repaid via property tax for upgrades
- Adopting Building Energy Standard Tier 2 for new homes to exceed minimum
- Development of a voluntary benchmarking, labeling, and disclosure program

## How can the City support community action?

**Partnership:** Support an industry-led knowledge exchange on net-zero building design and construction (developing and sharing resources, training events, or tools)

**Regulation:** Phase-in building energy performance benchmarking, labeling, and disclosure requirements (voluntary at first, then required, ultimately setting building performance standards)

**Regulation:** Advancing Building Energy Standard Tiers for new residential and commercial buildings and alterations (phased adoption up to higher energy efficiency tiers, eventually a net-zero standard)

# ENERGY GENERATION

## BACKGROUND

**Carbon pollution results from the electricity generated to power our homes, businesses, and increasingly our vehicles. This pollution makes up 30% of total greenhouse gas emissions in Saskatoon. To meet our climate goals, we will need to reduce the reliance on fossil fuels to power Saskatoon's electrical grid.**

SaskPower generates and distributes electricity across Saskatchewan. Saskatoon Light & Power purchases that electricity and distributes it to some of Saskatoon (with limited generation).

Currently, electricity is generated from natural gas, coal, and a small percentage of renewables. The source of electricity determines the emissions from electricity consumed. SaskPower has committed to a net-zero grid by 2050.

## How can we decarbonize Saskatoon's electrical grid?

- Generate zero-emission electricity on-site or with small-scale installations (e.g., rooftop) on residences or businesses.
- Increase the percentage of grid-supplied zero-emission electricity with utility-scale generation projects

# Leading by Example

## City Administration Actions

### Completed Actions:

- Dundonald Solar Farm design and ongoing installation
- Landfill gas capture and electricity generation
- Solar panels installed on new Fire Hall #5

### What's Next?

- Solar generation: ACT Arena, Material Recovery Centre and Landfill
- Monitor small modular reactor (SMR), nuclear feasibility

# ENERGY GENERATION

YOUR THOUGHTS

## Current community initiatives:

- MyHeat Solar Map provides free solar potential estimates for homeowners
- Net-Metering, Small Power Producer, and Behind the Meter Programs
- Loans for solar, to homeowners (and soon businesses) repaid via property tax
- Review and address administrative barriers to solar installations for electricity customers

## How can the City support community action?

**Regulation:** Explore approaches for solar PV requirements on new residential and commercial constructions through a Sustainable Building Standard or other mechanisms

**Leading by Example:** Monitor feasibility and opportunities for utility-scale zero-emission energy development (hydro, solar PV, SMR nuclear, public private partnerships, etc.)

**Service:** Offer a renewable subscription service for customers to purchase renewable energy credits through Saskatoon Light & Power

# ZERO-EMISSION TRANSPORTATION

## BACKGROUND

**In the past, much of Saskatoon's transportation network was designed for personal vehicles that relied on fossil fuels. Currently, transportation-related emissions make up 35% of carbon pollution in Saskatoon.**

## How can we reduce carbon pollution from transportation in Saskatoon?

- Increase public use of sustainable transportation options by increasing quality and convenience of public transit, active transportation services, and infrastructure.
- Support multi-modal trips, enabling users to combine a diversity of sustainable transport modes during their trip, such as public transit, biking, etc.
- Design compact and mixed-use neighbourhoods that reduce commuting distances, reduce reliance on private vehicles and support the use of public transit and active transportation.
- Transition privately-owned vehicles and commercial fleets to zero-emission vehicles
- Adopting behaviours and policies that reduce traffic in general, such as remote work or coordinating the transport of materials

# Leading by Example

## City Administration Actions

### Completed Actions:

- Pilot the use of electric Zambonis, landscaping equipment, and mowers
- Small number of electric light-duty fleet vehicles purchased
- Two electric buses and Transit fleet transition study

### What's Next?

- Continue to transition the City's light duty fleet to electric vehicles
- Evaluation, design, and installation of electric vehicle chargers and upgrades to support fleet electrification
- Monitor zero-emission vehicle solutions for heavy duty fleets
- Assess staff commuting mode share and promoting sustainable opportunities

# ZERO-EMISSION TRANSPORTATION

YOUR THOUGHTS

## Current and upcoming community initiatives

- Link (bus rapid transit) design and construction to improve Transit service
- Improving the active transportation network (pathways, sidewalks, bike lanes)
- Updating Active Transportation Plan and Corridor Planning

## How can the City support community action?

**Regulation:** Adopt EV-ready bylaws for multi-unit buildings, including requirements for new apartments and condos to include infrastructure for EV charging

**Incentive:** Incentives for vehicle-for-hire (taxis, ridesharing) to adopt EVs and for EV charger retrofits in existing multi-unit buildings.

**Service:** Improve amenities that support multi-modal trips, enabling users to combine multiple modes of sustainable transportation for longer or complete trips (example: secure bike or micromobility parking at transit hubs)

# WASTE REDUCTION

## BACKGROUND

**Waste that decomposes in landfills produces methane, a greenhouse gas that is more potent than carbon dioxide in the atmosphere. This process takes many years, which means the waste in our landfill today will produce methane over many decades.**

## How can we reduce emissions related to landfills?

- Prevent waste by reducing consumption and designing more durable products
- Reuse or repair items that would otherwise be discarded
- Recycle to give materials a second life as a new product
- Compost food and yard waste to reduce the main source of landfill methane
- Capture methane at landfills and use it to generate electricity

# Leading by Example

## City Administration Actions

### Completed Actions:

- Organics diversion in civic operations
- Continuous improvement and education for proper waste sorting
- Landfill gas emissions are captured for energy generation

### What's Next?

- Developing corporate waste diversion targets
- Update the Solid Waste Reduction and Diversion Plan
- Improving waste diversion in public spaces (events, civic facilities, parks, etc.)
- Approaches for waste prevention through purchasing

# WASTE REDUCTION

YOUR THOUGHTS

## Current community initiatives

- Curbside residential organic service and multi-unit organics program development
- Expanding the materials accepted in residential recycling programs
- Size and fee options for black cart curbside garbage collection
- Regulations that require businesses to divert recycling and organics
- Establishing the Material Recovery Centre diversion depot (co-located at the landfill)

## How can the City support community action?

**Service:** Expand the materials accepted at the City's Material Recovery Centre (lumber, drywall, mattresses etc.)

**Service:** Develop an extreme weather response plan for waste management

**Regulation:** Explore expanded requirements in the Waste Bylaw to support waste reduction and diversion (material bans at the landfill, construction and demolition waste)

# WATER CONSERVATION

BACKGROUND

**Water treatment and distribution requires energy that results in carbon pollution. Decreasing the use of treated water indoors and outdoors reduces the overall demand on our water system, resulting in lower energy consumption and reduced carbon pollution.**

## How can we conserve water in Saskatoon?

- Choose landscaping methods that use hardy species, xeriscaping, or passive rainwater use
- Seek out non-potable water sources for landscape watering (rainwater from rain barrels, irrigation from storm ponds)
- Install more efficient irrigation to control timing and duration of outdoor watering.
- Adjust behaviours related to indoor and outdoor water use to limit overall consumption (watering frequency, appliance use etc.)
- Repair and/or upgrade household bathroom and kitchen fixtures, and appliances
- Upgrade once-through cooling systems in larger facilities

# Leading by Example

## City Administration Actions

### Completed Actions:

- Spray pad low flow nozzle pilot
- Irrigation pilots in City parks and sports fields
- Using raw water for irrigating golf courses

### What's Next?

- Set corporate water reduction targets
- Continue upgrading spray pads
- Non-potable water pilots (watering truck pilot)
- Reducing breaks and leaks throughout water and wastewater systems

# WATER CONSERVATION

YOUR THOUGHTS

## Current community initiatives

- Using SmartUTIL to provide customers with detailed information on their water use
- Rain barrel rebate program
- Loans repaid via property tax, available to homeowners for water retrofits
- Water conservation education (online and at events)

## How can the City support community action?

**Incentive:** Explore further incentives for water conservation to encourage conservation (grants, expanded rebates)

**Service:** Review of the emergency water restriction policy to explore the impact on water conservation.

**All:** Explore ways to support water conservation through non-potable water use in the community

# GREEN NETWORK

## BACKGROUND

**Carbon is absorbed and stored in soils, roots, wetlands, grasslands, trees, and other plants. The process of removing carbon dioxide from the atmosphere is called sequestration, while the total amount of carbon that has been absorbed by a carbon sink is called carbon storage.**

**Urban development and changes to land use can result in the loss of natural areas, green space, trees, and agricultural lands, which removes carbon sinks and lowers annual sequestration rates.**

## How can we support carbon storage and sequestration?

- Avoid the loss of natural carbon sinks and their sequestration function by conserving key natural and naturalized areas.
- Enhance carbon storage and sequestration by restoring, managing, and connecting natural areas, green spaces, wetlands, the urban forest, and other forms of natural infrastructure.
- Create new sources of carbon storage and sequestration by adding and growing natural infrastructure in our urban landscape.

# Leading by Example

## City Administration Actions

### Completed Actions:

- Delivery of the Dutch Elm Disposal Program
- Roll-out of the Tree Protection Bylaw for trees on City property
- Developing Natural Area Management Plans
- Restoration projects (such as Richard St Barbe Baker Afforestation Area)

### What's Next?

- Increase tree canopy
- Improve Natural Capital Asset Valuation to better understand carbon storage and sequestration
- Complete Natural Infrastructure Fund projects (planting and improvements at various sites)

# GREEN NETWORK

YOUR THOUGHTS

## Current community initiatives

- Collaboration with Meewasin on river valley and swale resource management
- Public space gardening (community, allotment, and boulevard gardens)
- Property owners may request boulevard tree plantings adjacent to their properties
- Education program for residents on sustainable practices through the Healthy Yards Program.

## How can the City support community action?

**Incentive:** Explore incentives for enhancing natural infrastructure (grants or rebates for industrial and commercial sectors, community organizations, and residents)

**Partnership:** Develop agreements and programs that enable community-led planting and stewardship of public green space.

**Regulatory:** Developing policies and processes that identify and conserve natural areas and sensitive habitats throughout planning and development.

# CARBON REMOVAL

BACKGROUND

**It won't be possible to eliminate all sources of carbon pollution. Residual emissions refer to the carbon pollution that remain after all feasible reduction measures have been implemented.  Carbon removal approaches can be considered to address anticipated residual carbon to reach net-zero.**

## What are some carbon removal approaches?

- Passive carbon removal occurs as carbon is absorbed and stored in the soils, roots, and parts of plants that live in habitats across Saskatoon (wetlands, grasslands, urban forest, etc.)
- Active carbon removal approaches include:
  - Biochar is made by heating biomass (e.g. residual crop material), which has captured carbon from the atmosphere during its growth and stores it in a stable form.
  - Direct air capture is a technology that uses chemical reactions to pull carbon dioxide out of air and store it, often underground.

### How could Saskatoon incorporate carbon removal approaches

- Captured carbon can be incorporated into construction materials such as concrete or wood, reducing the overall carbon footprint of the materials.
- Captured carbon such as biochar can be incorporated into landscaping.
- Cities can purchase carbon offsets, which are credits that certify quantifiable carbon reductions from a project that captures carbon elsewhere.

# Leading by Example

## City Administration Actions

### No actions Completed to date

### What's Next?

- Monitor and pilot developing carbon removal technologies that may be relevant to civic services (biochar in landscaping, construction materials for roadways and buildings)
- Explore carbon removal policies or use of credits among municipal governments

# CARBON REMOVAL

YOUR THOUGHTS

## Current and upcoming community initiatives:

- Greenhouse gas accounting and modeling to estimate residual emissions (the carbon pollution that will remain after all feasible reduction measures have been implemented)

## How can the City support community action?

**Partnership:** Research partnerships on municipal or urban opportunities for carbon removal

**Partnership:** Industry partnerships on municipal or urban opportunities for carbon removal


# SOCIAL
# ENVIRONMENTAL
# ECONOMIC

The City is committed to integrating environmental, social and economic considerations into everything that we do.

## Considering all the ideas presented today, what additional community benefits can be supported by taking action?

**Social** (Reconciliation, health and safety)

**Economic** (Affordability, business development)

**Environmental** (Waste reduction, ecological benefits)


# SOCIAL
# ENVIRONMENTAL
# ECONOMIC

The City is committed to integrating environmental, social and economic considerations into everything that we do.

## How could the possible actions explored today cause negative impacts?

### Social Impacts

### Economic Impacts

### Environmental Impacts

# WE APPRECIATE YOUR FEEDBACK

## Project Timeline:

- Fall 2024 – Internal Climate Risk Assessment
- Spring 2025 – Climate Adaptation Workshop
- Summer 2025 – Public Community Survey
- **Fall 2025 – Come-and-Go Stakeholder Event** **You are here**

## Next Steps:

- Winter 2025/26 - Plan Drafting & Internal Review
- Summer 2026 – Climate Action Plan to Council

If you have any further questions or comments about this work, please contact us:

**Climate Project Team**
Sustainability@saskatoon.ca
306-986-0839

City of Saskatoon

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