

NO: R095

COUNCIL DATE: May 10, 2021

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **May 6, 2021**

FROM: **General Manager, Engineering
General Manager, Planning & Development
General Manager, Parks, Recreation & Culture
General Manager, Finance**

FILE: **0512-02**

SUBJECT: **Climate Change Action Strategy – Update on Progress and Draft Framework
for Community Engagement**

RECOMMENDATION

The Engineering Department, the Planning & Development Department, the Parks, Recreation & Culture Department and the Finance Department recommends that Council:

1. Receive this report for information; and
2. Approve the draft climate change action framework, as described in this report, as a basis for community engagement.

INTENT

The intent of this report is to update Council on progress to date on the development of the Climate Change Action Strategy (“CCAS”) and to seek approval of the preliminary framework proposed to be used in upcoming community engagement to inform the draft CCAS report.

BACKGROUND

On November 4, 2019, Council declared a “climate emergency”. On March 9, 2020 Council adopted new 2050 community and corporate greenhouse gas (“GHG”) emissions targets for inclusion in Surrey’s Official Community Plan (Corporate Report No. R048; 2020 attached as Appendix “I”). At that meeting, Council directed staff to develop a CCAS, building on existing strategic plans, to provide a roadmap for reaching the 2050 GHG targets while also improving the community’s resilience to climate change impacts.

This Corporate Report responds to Council’s direction by presenting analysis and a preliminary framework of priority action areas, as well as outlining a proposed community engagement plan to gather public input to inform development of a plan for a zero-carbon, resilient city.

DISCUSSION

Status and Timeline of the CCAS

Following Council’s adoption of updated GHG emissions targets, development of the CCAS began in the Summer of 2020. Actions to date have included updating the City’s baseline GHG inventory, modelling of future GHG emissions scenarios, a review of best practices and research, and ongoing internal cross-departmental engagement. Emissions modelling was used to identify priorities and opportunities for reducing emissions to reach net zero before 2050. Collectively, these inputs informed development of the preliminary CCAS framework outlined in this report.

The work is now at a stage where public engagement is required in order to build awareness about the initiative and solicit feedback on the framework to inform the detailed strategy. Following public engagement, staff will develop the draft CCAS for Council’s consideration near the end of 2021. This timeline is outlined in Figure 1 below.

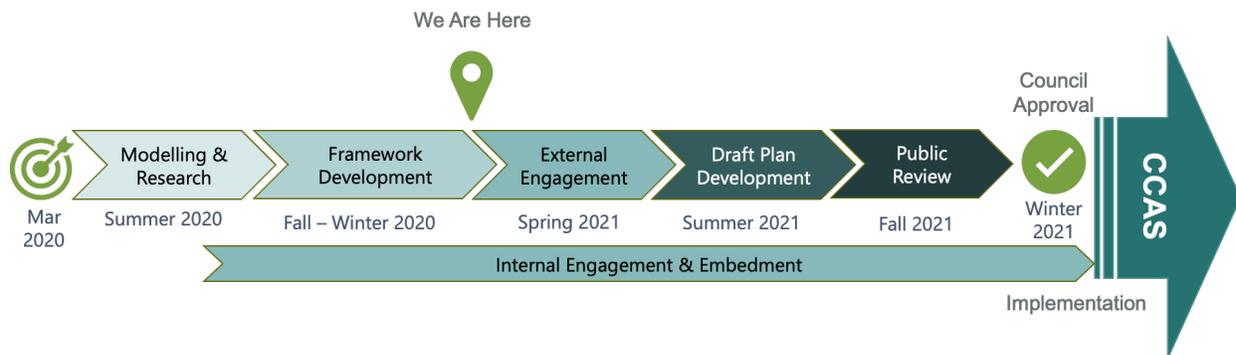


Figure 1. CCAS Timeline

Community Emissions – Current Status and Projections

Surrey’s community GHG emissions currently total approximately 2.3 million tonnes per year. Following Provincial guidance, the inventory includes emissions attributable to buildings, on-road transportation, solid waste, non-road equipment (e.g., for construction, agriculture, industry), rail, and industrial processes. Values are calculated using a global standard known as the Global Protocol for Community-scale Greenhouse Gas Emission Inventories.

As shown in Figure 2 below, on-road transportation is responsible for the largest share of community emissions, at 46%. The majority (83%) of these emissions is from passenger vehicles. Buildings are the next largest source, at 40%. Since BC’s electric grid is already nearly zero-emissions, most (96%) of the building carbon pollution comes from natural gas. The remaining emissions are attributed to non-road vehicles and equipment (10%), solid waste (2.6%) and industrial processes on non-Federal lands (0.5%).

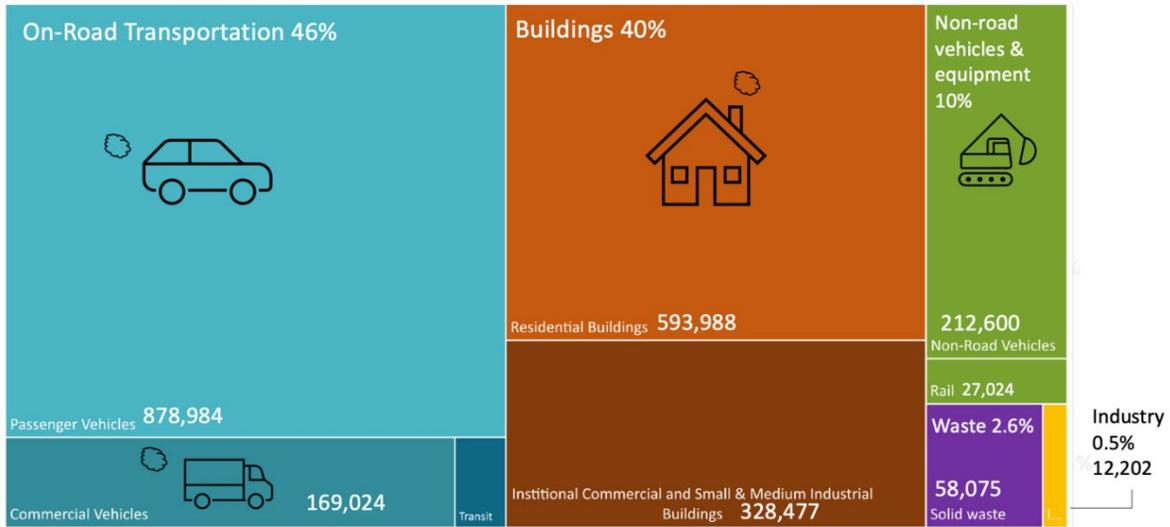


Figure 2. Surrey’s community wide GHG emissions; total is 2.3 million tonnes per year.

Where Are We Headed? (“Business As Usual” and “Business As Planned”)

To estimate the current trend in emissions, two scenarios were modelled, called “business as usual” and “business as planned”. Both account for factors such as population growth, along with associated new buildings and vehicles as well as the planned Surrey Langley SkyTrain project. They assume that the community grows according to the current Official Community Plan, approved Neighbourhood Concept Plans, and Regional Growth Strategy. The expected impacts of established regulations, such as the provincial Energy Step Code and the federal Low Carbon Fuel Standard, are also accounted for.

The “business as planned” scenario adds the projected impact of the recently approved Provincial *Zero Emissions Vehicle (“ZEV”) Act* and ZEV Regulation, together with the Surrey Electric Vehicle Strategy. As shown in Figure 3, the “business as usual” scenario projects an increase in overall emissions of 16%, while up to a 18% emissions reduction could result under the “business as planned” scenario.

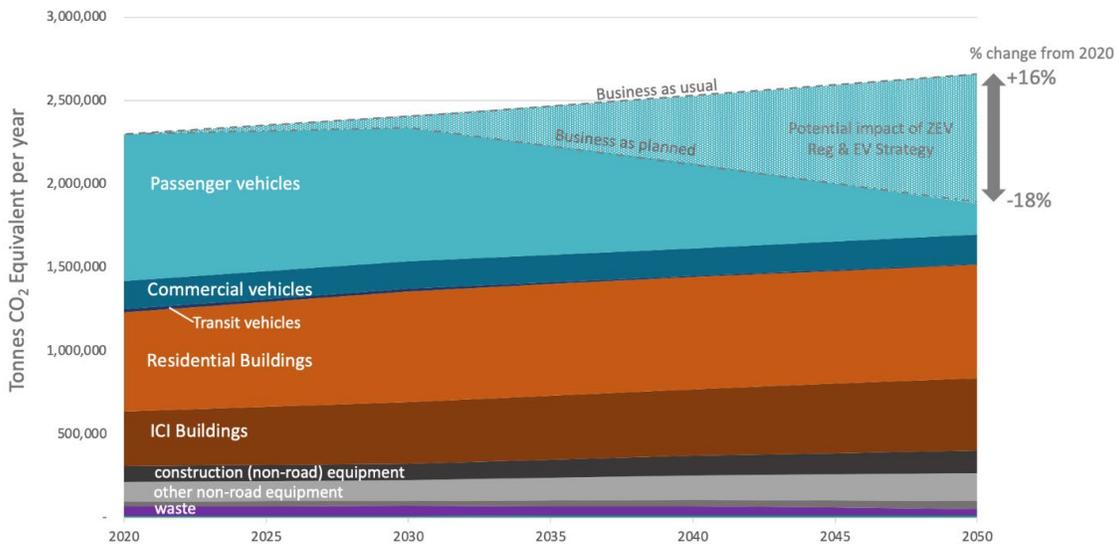


Figure 3. Projected emissions to 2050 – “business as usual” and “business as planned”
There are several key findings and implications of this modelling.

- Neither the “business as usual” nor the “business as planned” scenario would achieve Surrey’s adopted target for net-zero community carbon emissions before 2050. This implies that significant new policy directions are needed across key sectors to reduce emissions to near zero.
- Under the “business as planned” scenario, passenger vehicle emissions would significantly decrease due to recently adopted policy (Provincial ZEV Regulation and Surrey’s Electric Vehicle Strategy). In this scenario, significant emissions would still remain from passenger and commercial vehicles²⁰⁵⁰ due to uncertainty in ZEV uptake and the lag in vehicle fleet turnover. This implies that measures in addition to vehicle electrification are needed to eliminate transportation emissions by 2050, such as increased transit investment in Surrey beyond what is currently being considered by TransLink.
- Under the “business as planned” scenario, building emissions would increase and form the dominant source of carbon pollution in 2050, due to the lack of any Provincial building regulation that mandates emissions reduction in a similar way as for vehicles. This implies that regulations, policies and programs to phase out fossil fuels in both new and existing buildings are the key priority.
- There are emissions from various categories of non-road equipment, which include lawn and garden equipment, agricultural equipment, construction equipment, industrial and commercial equipment and recreational equipment. As the City has limited jurisdiction over these activities, emissions need to be addressed with the support of regional, provincial and federal regulations and programs.

Climate Change Adaptation and Equity

As outlined in Corporate Report R048; 2020, a copy of which is attached as Appendix “I”, the CCAS will incorporate climate change adaptation in addition to reducing GHG emissions (also called “mitigation”). Climate change adaptation means preparing for the expected impacts of climate change by adjusting ecological, social, and economic systems and policies to improve overall resilience. Staff are currently in the process of reviewing the status of actions in the City’s existing Climate Adaptation Strategy and incorporating updated data to develop a streamlined approach to integrate adaptation throughout the CCAS in a single framework.

Climate change mitigation and adaptation are highly complementary. An approach that simultaneously addresses both can result in more holistic benefits for the community, including increased return on investment, access to a wider range of funding options, and significant time and resource savings. This integrated approach is sometimes referred to as “low carbon resilience” and is being applied in development of the CCAS.

Many of Surrey’s most vulnerable community members are often the most impacted by climate change and least able to adapt. For example, low-income residents living in older buildings with crowded conditions are more susceptible to health impacts due to over-heating, poor indoor air quality associated with inadequate ventilation together with gas appliances, and inefficient and costly heating. The CCAS will include equity considerations informed by best practices and engagement with representatives of vulnerable and marginalized communities.

Draft CCAS Framework

The draft CCAS framework outlined below has been defined based on the findings of the City's GHG inventory, emissions modelling and incorporation of best practices from other jurisdictions.

All the essential components of the framework as outlined below are needed to reach the City's climate targets. Each of these components include a future vision statement, draft targets, and key strategies that will be required to make the vision a reality. This material will be shared in various formats using accessible language and engaging graphics with the public and stakeholders. Resulting feedback, alongside additional analysis and internal engagement, will then be used to inform the development of the draft CCAS report, which will be advanced for Council's consideration later this year.

Essential Components

Based on the City's GHG inventory and modelling and best practices, five components of the strategy have been identified, which are necessary areas of action to set the community on a course to reduce carbon pollution to net zero levels before 2050, and improve resilience to climate change impacts. For each component, a vision statement has been drafted to convey outcomes needed to meet Council's climate targets while also upholding Surrey's Sustainability Charter.

Draft Targets

Draft targets have been drafted for each essential component as an indicator of the scale and trajectory of key changes necessary to achieve the vision for each component. The targets are based on the City's emissions modelling, informed by precedents from comparable jurisdictions. They are preliminary and additional targets may be drafted pending further analysis and feedback. A final set of sector-specific targets will be included in the CCAS to track progress and guide the development and implementation of short and medium-term policies and actions.

Key Strategies

Key strategies describe the general type of actions that will need to be prioritized in order to meet the draft targets. Sector-specific action plans will later be developed over time in coordination with the relevant divisions across all City departments to support the broad level of action necessary.

1. Resilient, Zero-Carbon Neighbourhoods

Vision:

Surrey residents can meet their daily needs within a safe and easy walk, cycle or transit ride from home. Most neighbourhoods have a mix of different types of homes, shops and businesses. Networks of safe bike paths, sidewalks and frequent transit connect neighbourhoods. Trees and lush vegetation support biodiversity, cool the air and absorb rainwater. These public spaces are inclusive and welcoming to all.

Draft Targets:

- A percentage (yet to be established) of residents can access their daily needs within a safe and convenient walk, cycle or transit trip from their home. By 2050, this target should be about between 75% and 90% of households.
- “Daily needs” can include access to amenities such as groceries, childcare, pharmacy, neighbourhood park, health care, schools, shopping and access to frequent (or rapid) transit.

Key Strategies:

- Land use is aligned with climate policies, including through updates to the Official Community Plan and Zoning Bylaw, to enable complete, walkable neighbourhoods and focus growth in areas that already have roads and services in place.
- New neighbourhoods are designed to meet higher climate standards, such as possibly using only renewable energy, providing more greenspace that provides cooling and absorbs rainwater, and minimizing land-clearing.
- More “people-first streets” include green spaces, safe cycling and walking protected from vehicles, to create areas for people to safely walk, play, and socialize, with limited or restricted vehicle access.

2. Safe, Zero-Carbon Transportation

Vision:

Everyone can access their daily needs easily and safely without the need for a car. Frequent transit and safe walking and cycling infrastructure support and connect complete communities. All vehicles are free from carbon pollution. Streets are safe, welcoming spaces for all people that facilitate walking, cycling and transit, and include green features and places to gather.

Draft Targets:

- *Mode share:* A growing percentage of distance travelled should be made via cycling, walking, or transit. Targets should be defined for 2040, increase steadily to reach about 50% by 2050.
- *Active transportation:* Address critical gaps in the City Centre’s walking and cycling network, and build the strategic cycling network connecting adjacent town centres, by 2025.
- *Electric Vehicle Charging:* Targets for public EV charging may include ensuring a fast-charge station is within a short drive for most residents.

Key Strategies:

- Transit service is expanded throughout Surrey in order to allow residents to meet their daily needs, including SkyTrain to Newton and higher order of transit to connect the City’s town centres, all to be incorporated into TransLink’s T2050 plan.
- More safe, connected walking and cycling routes are built within and connecting neighbourhoods.
- Parking policies are optimized to encourage zero-carbon modes and transit options.
- Public EV charging is expanded, and policies are developed, to encourage zero-emissions light, medium and heavy-duty vehicles, and electric bikes.
- More street trees and raingardens are established alongside roads, sidewalks and cycle paths to provide shade, habitat and absorb rainwater.

3. Healthy, Zero-Carbon Buildings

Vision: All buildings are healthy, energy efficient, and don't emit carbon pollution. They are comfortable year-round and help to protect us from the impacts of climate change.

Draft Targets:

- 2025: All new buildings produce zero climate pollution when operating.
- 2030: All new large (Part 3) buildings have 40% less embodied carbon and improved resilience to climate change impacts.
- 2050: All buildings have net zero emissions.

Key Strategies:

- New buildings in Surrey, in coordination with the region, are required to use only low-carbon, renewable energy (e.g., low-carbon district energy or electricity) for heating and hot water, as soon as possible.
- Strategies are developed in partnership with senior levels of government to reduce carbon pollution from existing buildings and help building owners access information and resources for retrofits.
- Surrey City Energy's planned low-carbon transition is accelerated and aligned with the 2050 net-zero target.
- Policies are developed in partnership with senior levels of government to reduce embodied carbon in new buildings.
- Policies are implemented in partnership with senior levels of government to ensure that buildings are ready for climate change impacts and to protect health, including better cooling ability for hotter summers, improved ventilation and filtration of wildfire smoke.

4. Resilient, Climate-Positive Ecosystems

Vision:

Surrey's ecosystems (like forests, streams and wetlands) are healthy, resilient and well-managed. They are valued for services like storing carbon, reducing flooding, and cleaning the air and water. Abundant parks and green infrastructure like street trees and rain gardens support biodiversity and provide beautiful places for people to enjoy nature throughout the city.

Draft Targets:

- *Urban Forest Canopy:* Build the City's urban forest. Surrey is currently embarking on an Urban Forest Management Strategy, expected to be completed by the end of 2021, which will define targets that are suited to the region, and a plan to reach them.
- *Ecological Health:* Assess the health and "functioning" of streams and wetlands as an indicator of overall ecosystem health and resilience.
- *Protected Area Condition and Extent:* Track the health and extent of ecosystems protected within the City's Green Infrastructure Network.

Key Strategies:

- The Urban Forest Management Strategy is complete and targets are established for tree cover, and the City continues to acquire, restore, and enhance new ecologically significant lands in support of the Biodiversity Conservation Strategy.
- Green infrastructure is incorporated in City projects, such as wildlife-friendly road crossings, rain gardens, and native plants in landscaping.
- The value of natural assets is incorporated in decision making, for example by building on the lessons learned from a recent natural asset management plan for the Little Campbell River watershed which could be expanded to other watersheds or the entire city.
- Partnerships and agricultural research are encouraged and supported in cultivation techniques that increase soil carbon, restore ecosystems, and enhance local food production.
- Projects are advanced to restore ecosystems so they remove more carbon pollution and help to balance the City's small remaining emissions by 2050.

5. Bold City Leadership

Vision:

The City is a leader in putting equitable climate action at the centre of our decision making. City-owned vehicles, buildings and infrastructure are free of carbon pollution and prepared for climate change impacts. Supported by the City and other partners, the community is aware, empowered and engaged in climate action. These actions set a path for many others to follow, and support a thriving, local green economy.

Draft Targets:

- *Every year:* The City discloses its vulnerability to climate change impacts, and progress towards its targets.
- *2050:* All City fleets are zero-emissions.
- *2050:* All City facilities are zero emissions, highly efficient, and future-climate-ready.

Key Strategies:

- Financial decision-making tools such as carbon accounting, climate risk disclosure, and green procurement policies are implemented to ensure proactive climate action is prioritized in budget development, long term planning and risk management.
- All new City facilities are planned to be zero-carbon or zero-carbon ready, highly efficient and designed for climate resilience.
- Transition plans for zero emissions City fleets and existing buildings are developed to align with the 2050 target.
- People, businesses and organizations are included in the development of the CCAS and empowered to help position the City as a leader in clean technology and sustainable practices for an equitable zero-carbon transition.

Pathway to Achieving the Climate Targets

The City has direct control over its corporate GHG emissions through the development, procurement and management of civic assets such as buildings, vehicles, energy and waste facilities, and city owned lands and parks.

The City influences community GHG emissions through land use and transportation planning, building permitting, and infrastructure development. However, there are still limits to the City's authority and jurisdiction in these areas.

In other sectors, such as vehicle and equipment standards, agricultural practices, and industrial emissions, the City has much less control. For these reasons, success in meeting the City's climate targets will depend on coordinated action and support from other jurisdictions, including:

- Federal government – e.g. vehicle emissions standards; Port activities; funding to provinces and local governments.
- Provincial government – e.g. building codes and standards; EV sales; environmental protection; agricultural activities; highways; regulation of utilities; infrastructure funding.
- Regional government (Metro Vancouver) – e.g. air pollution monitoring and regulation; regional land use planning.
- BC Hydro and FortisBC – e.g. utility services, rates (subject to provincial oversight) and rebates.
- TransLink – transit service delivery; major road networks and bridges.

Meeting the City's climate targets will be challenging and require significant change. However, this level of ambition is well aligned with policy directions at the federal, provincial and regional levels, as well as with neighbouring local governments. GHG reduction targets adopted by these agencies include:

- Government of Canada: net zero by 2050; 40% to 45% by 2030.
- Province of British Columbia: the NDP government has pledged to legislate net zero by 2050 if re-elected; the current 2050 target is 80% reduction, 60% by 2040, 50% by 2030, and 16% by 2025. The Province has also adopted sectoral targets for transportation, industry, oil and gas, and buildings and communities.
- Metro Vancouver: net zero by 2050; 45% by 2030. The Climate 2050 plan is in development to outline sectoral targets and strategies.
- Local governments that have adopted a net zero (or 100%) reduction by 2050 target and a 45% or 50% by 2030 target include: Vancouver, Burnaby, Richmond, Township of Langley, New Westminster, West Vancouver, North Vancouver (City), North Vancouver (District).

A number of local governments have also set interim sectoral targets, such as for mode shift and zero carbon new buildings.

Leading financial institutions, asset managers, and major corporations across the world are also adopting similar targets in response to strong public support for bold and timely action.

Financial implications

Adoption of the recommendations of this report do not have any direct financial implications. Funding for the CCAS plan development and public engagement is being drawn from existing budgets. There will be longer term financial implications associated with implementing the CCAS to reach the City's targets, which will require more detailed analysis as a part of the development of specific action strategies. These cost implications will be brought forward for Council's consideration in future corporate reports and financial plans.

Community Engagement

Staff have prepared a stakeholder engagement program that aims to build awareness and understanding about climate change and the CCAS response, and provide an opportunity for input and comments that will be used to inform the draft CCAS. This program has been informed by the initial findings from the Public Engagement Taskforce.

The program is expected to consist of two phases:

1. Phase One will launch on May 13, 2021 and will extend until the end of June 2021. Information will be provided on the City's website and promoted through a variety of social media and advertising channels, public survey and virtual events. Individual meetings with key stakeholders will also be held over this period.
2. Phase Two is expected to take place in the Fall of 2021. The purpose of this phase of engagement will be to share the draft CCAS, to identify any significant gaps or areas of concern, and build support for collaborative action to support implementation of the CCAS.

SUSTAINABILITY CONSIDERATIONS

The Climate Change Action Strategy supports the objectives of the Sustainability Charter 2.0. In particular, this work relates to the Sustainability Charter 2.0 themes of Built Environments and Neighbourhoods, and Infrastructure. Specifically, the initiatives support the following Desired Outcomes ("DO"):

- Neighbourhoods and Urban Design DO9: All aspects of planning, design and construction include climate change impacts, GHG mitigation, adaptation, and resiliency strategies;
- Emergency Preparedness and Prevention DO8: The community's critical infrastructure and systems are designed to withstand climate change impacts, natural events and disasters, and include emergency response and reconstruction plans;
- Energy and Climate DO6: The City anticipates changing weather patterns and sea level rise as a result of climate change, and implements appropriate infrastructure, land use planning and emergency response solutions that will be resilient over the long term; and
- Energy and Climate DO7: Per capita emissions are low and align with global GHG reduction targets.

CONCLUSION

After extensive internal engagement and alignment of strategic objectives across departments, staff have developed a draft CCAS framework. Building on the input received through engagement, as well as further modeling of GHG reduction scenarios and internal dialogue, staff will prepare a summary report of the CCAS framework for Council's consideration in the Fall.

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Appendix "I" – Corporate Report No. Ro48; 2020

[https://surreybc.sharepoint.com/sites/eng.administration/wp_docs/2021/admin/cr/vl climate change action strategy - update on progress and proceeding with community engagement.docx](https://surreybc.sharepoint.com/sites/eng.administration/wp_docs/2021/admin/cr/vl%20climate%20change%20action%20strategy%20-%20update%20on%20progress%20and%20proceeding%20with%20community%20engagement.docx) CLR 5/6/21 5:10 PM



CORPORATE REPORT

NO: R048

COUNCIL DATE: March 9, 2020

REGULAR COUNCIL

TO: Mayor & Council DATE: March 3, 2020

FROM: General Manager, Parks, Recreation & Culture FILE: 0512-02
General Manager, Engineering
General Manager, Planning & Development

SUBJECT: Update to the Climate Emergency Response and Amendments to Surrey
Official Community Plan Bylaw, 2013, No. 18020

RECOMMENDATION

The Parks, Recreation & Culture Department, the Engineering Department, and the Planning & Development Department recommend that Council:

1. Receive this report for information;
2. Approve amendments to the Surrey Official Community Plan Bylaw, 2013, No. 18020, as amended, as documented in Appendix "I" of this report; and
3. Authorize City Clerk to bring forward the necessary Amending Bylaws for the required readings and to set a date for the related public hearing.

INTENT

The purpose of this report is to discuss next steps in support of the Climate Emergency Declaration and to obtain Council approval for the amendments to the Surrey Official Community Plan Bylaw, 2013, No. 18020, as amended.

BACKGROUND

At its Regular meeting on November 4, 2019, Council received Corporate Report No. R213; 2019 (attached as Appendix "II") that included the recommendation that staff report back to Council within six months on proposed revisions to the existing corporate and community GHG emissions reduction targets and report back within one year with an update to the CCAS. At the same council meeting, Council received a motion from the Environmental Sustainability Advisory Committee that was carried unanimously.

The motion, RES.R19-1922, read as follows:

“That Council declare climate change as an emergency and direct staff to review the City’s climate change targets in the context of the latest research of the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming.”

In 2010, Council adopted the Corporate (“GHG”) Emissions Action Plan, which included a target to reduce corporate GHG emissions by 20% by 2020. In the same year, the City also adopted community wide GHG reduction targets in the City’s Official Community Plan (“OCP”). Paragraph D4.2 in the Policies section of the OCP reads that the City will:

“Move toward reducing Surrey’s per capita GHG emissions (see Figure 40) from non-agricultural and non-industrial activities to below 2007 levels, by 33% before 2020 and by 80% before 2050.”

These targets are in need of updating for several reasons. Firstly, the interim targets were set at 2020, a date that has now passed. Secondly, the community target is based on a per-capita measure of GHG emissions which does not align with current best practice. Finally, in order to align with the recommendations in the Intergovernmental Panel on Climate Change (“IPCC”) Special Report on Global Warming, it is necessary for all levels of government to adopt policies that will enable a net-zero GHG economy by 2050.

IPCC

The IPCC was established by the United Nations in 1988 and is recognised as the leading scientific body on climate change. In 2018, the IPCC released a report that compared the impacts of 2°C vs. 1.5°C of global warming above pre-industrial levels. As a point of reference, all impacts occurring thus far have been from the Earth warming by 1°C on average. The main conclusions of this report were that:

1. Half a degree will significantly worsen the risks of drought, floods, extreme heat and poverty for hundreds of millions of people;
2. Half a degree will significantly increase the risk of exceeding certain irreversible tipping points beyond which our ability to safely adapt could be overwhelmed; and
3. We can keep warming to 1.5°C but it will require urgent transformative action at all levels of government to eliminate GHGs by 2050.

DISCUSSION

Update to Surrey’s GHG Reduction Targets

Cities around the world are experiencing escalating and accelerated changes due to a significantly warming planet caused by human activity. Worldwide, climate scientists agree that the fast-rising global temperature has created a climate crisis. Local governments have the power to make decisions and take actions that will, collectively, protect the climate at a global scale while creating a more resilient community locally. The technological solutions, skills and knowledge already exist to transition away from fossil fuels to clean, renewable energy sources but the current scientific consensus suggests that greater urgency is required. New commitments are being made by governments at all levels around the world to accelerate community-wide action and investment to limit global warming to 1.5°C.

Following the Climate Emergency Declaration, a critical next step in addressing this challenge is to clearly define climate change targets for Surrey that would be necessary to reduce Surrey's relative impact on rising global average temperatures to a level consistent with 1.5°C. Based on the conclusions of the IPCC Special Report on Global Warming, this means net-zero GHG emissions across the community before 2050. Net-zero emissions refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere by such activities as planting trees. Absolute zero emissions would mean that no sources of new emissions exist. Surrey's community GHG emissions inventory includes emissions associated with buildings, on-road transportation, municipal solid waste, and land-use change from deforestation but excludes GHG emissions from agriculture and industry as these sources are managed at the regional district level.

Setting a target of net-zero GHG emissions before 2050 would ensure that Surrey's efforts are closely aligned with other leading municipalities across the Province and throughout Canada. At the regional level, the Metro Vancouver Regional District board recently approved amendments to the Climate 2050 Strategic Framework that include a commitment to a carbon neutral region by 2050. Working in close collaboration with Metro Vancouver and its member municipalities will enable Surrey to accelerate action across the community. Setting targets that meet the current best practice in climate action will position Surrey to attract financial support from senior levels of government to advance strategies that align with these targets.

While Surrey's corporate GHG emissions from civic facilities, corporate fleet and vendor operations represents a relatively small share of the total community GHG profile, it is important that the City demonstrate leadership by continuing to find ways to reduce corporate GHG emissions. Compared to the broader community GHG profile, Surrey has much greater control over GHG reductions in its corporate operations and by adopting leading edge technologies in its buildings, transportation fleets and vendor operations, Surrey can provide proof-of-concept for measures that will need to be broadly adopted across the community before 2050.

To achieve these objectives, staff are recommending that Council adopt community and corporate GHG emissions targets of net-zero and absolute zero, respectively, before 2050. If approved, these recommendations will be carried through amendments to Surrey's OCP as documented in Appendix "II" of this report.

Update to Surrey's Climate Action Strategy

Achieving the proposed GHG reduction targets before 2050 will require partnerships and collaboration with utilities, municipal governments, local businesses and Surrey residents. Supportive legislation and resources from senior levels of government will be also be critical for success. Equally critical is an update to the City's Community Climate Action Strategy ("CCAS") that includes clear articulation of the policies and actions available to the City of Surrey in support of the proposed GHG reductions targets as well as measures that are outside of the City's control but within the City's sphere of influence.

Through 2020, staff will be working on an update to the CCAS that will frame the City's approach to meeting the proposed corporate and community GHG reduction targets and illustrate a credible path to zero emissions in each of the following sectors:

1. Land-use;
2. Transportation;
3. Energy Systems;
4. Buildings; and
5. Waste.

To ensure the success of this strategy, staff in the Sustainability Office will work with staff across the organization to ensure that measures available to the City are identified and prioritized within existing and future plans, policies and projects in support of the proposed 2050 targets. Through this process, interim targets will be developed for the year's 2030 and 2040 providing key benchmarks for prioritization and budgeting of capital works and programs as well as periodic opportunity for the City to assess its progress towards the 2050 goals. Integrating the response to the climate crisis into each of the core areas of business for the City can yield significant results in GHG reduction with limited impact on human resources and capital.

Staff will conduct a modelling exercise to establish various pathways through which the City can meet the proposed 2050 targets in each of the 5 sectors above and develop guidelines to be applied to existing and future plans, policies and projects. A review of the existing CCAS will also be conducted in order to identify opportunities to advance adaptation measures through GHG reduction efforts making Surrey more resilient to the impacts of climate change that can't be avoided.

Collectively, the CCAS update will consist of:

1. An illustration of the sector pathways to meet net-zero GHG's by 2050;
2. Development of guidelines to be applied to existing and future plans, policies and projects;
3. Development of a separate corporate GHG reduction pathway;
4. Establishment of interim targets for 2030 and 2040;
5. Review and update of the Climate Adaptation Strategy; and
6. Development of a monitoring and reporting framework.

It is anticipated that the updated CCAS will be completed within a year's time and presented to Council for consideration in early 2021.

Integration with the Transportation Strategic Plan

A successful response to the climate crisis requires deep integration across all City departments to ensure that opportunities to make progress towards the 2050 GHG reduction targets are identified and embedded into City's plans, policies and projects. The ideal time to focus on this integration is during the planning process for major City initiatives such as the Transportation Strategic Plan which is currently underway. Staff in the Sustainability Office have and will be deeply engaged in the development of the Transportation Strategic Plan to help provide a framework for transitioning the transportation system in Surrey to work towards net-zero GHG before 2050. By demonstrating a credible path to achieving this goal in the transportation sector, Surrey will be well on its way to updating the overall CCAS as transportation represents approximately 54% of the total community GHG emissions.

Community Consultation

Broad community support and buy-in will be essential to the successful implementation of the updated CCAS. The process of updating the CCAS will include consultation with a diverse range of community stakeholders. It is important to recognize that climate change will not affect all Surrey residents to the same degree. Lower income and socially marginalized populations will have more difficulty coping with the impacts of climate change. These vulnerable populations will have fewer options to protect themselves when a disruptive event occurs and may have more difficulty recovering from the impacts. Policies and programs to reduce GHGs and adapt to the changing climate must not exacerbate existing economic, social, or geographic disparities. The design of policies and programs that reduce GHGs should be accessible to all Surrey residents. Inclusion, equity and affordability will be central considerations in the development of the updated CCAS.

SUSTAINABILITY CONSIDERATIONS

The work of the Community Climate Action Strategy supports the objectives of the Sustainability Charter 2.0. In particular, this work relates to the Sustainability Charter 2.0 themes of Built Environments & Neighbourhoods, and Infrastructure. Specifically, the initiatives support the following Desired Outcomes ("DO"):

- Neighbourhoods & Urban Design - DO 9: All aspects of planning, design and construction include climate change impacts, GHG mitigation, adaptation, and resiliency strategies.
- Emergency Preparedness & Prevention - DO 8: The community's critical infrastructure and systems are designed to withstand climate change impacts, natural events and disasters, and include emergency response and reconstruction plans.
- Energy & Climate - DO 6: The City anticipates changing weather patterns and sea level rise as a result of climate change, and implements appropriate infrastructure, land use planning and emergency response solutions that will be resilient over the long term.
- Energy & Climate - DO 7: Per capita emissions are low and align with global GHG reduction targets.

CONCLUSION

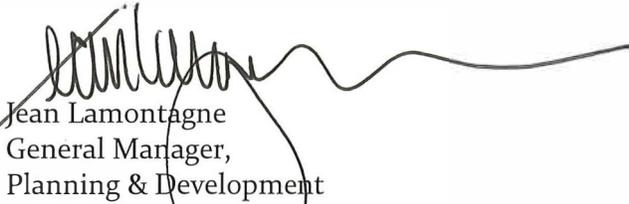
The recommendations and next steps proposed in this report are intended to address climate change risks facing Surrey residents and to guide the City's path to a resilient, zero-GHG community. By taking these steps now to improve and advance the Community Climate Action Strategy, Surrey is well positioned to continue to leverage additional financial support from senior levels of government; lead the way forward with innovative approaches to reducing GHG's; and collaborate with other local governments and economic partners to combine efforts and accelerate action.



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General Manager,
Parks, Recreation & Culture



Scott Neuman, P. Eng.
General Manager,
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Appendix "I": Summary of Surrey Official Community Plan Bylaw, 2013, No. 18020, as amended
Appendix "I" – Proposed Amendments to Surrey's OCP, as amended
Appendix "II": Corporate Report No. R213; 2019

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Note: Appendices available upon request