Agenda – Executive Policy Committee – January 21, 2020

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – January 9, 2020

Item No. 1 Winnipeg Climate Action Plan – Annual Report

On January 9, 2020, due to a tie vote, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment submitted the matter to the Executive Policy Committee and Council without recommendation.

Agenda – Executive Policy Committee – January 21, 2020

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – January 9, 2020

DECISION MAKING HISTORY:

On January 9, 2020, due to a tie vote, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment submitted the matter to the Executive Policy Committee and Council without recommendation.

COUNCIL DECISION:

On December 12, 2019, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and adopted the following:

1. That an extension of time of 30 days be granted for the Winnipeg Public Service to report back on the matter.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On December 3, 2019, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On November 28, 2019, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment recommended to Council:

1. That an extension of time of 30 days be granted for the Winnipeg Public Service to report back on the matter.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – January 9, 2020

DECISION MAKING HISTORY (continued):

COUNCIL DECISION:

On September 20, 2018, Council adopted the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment which included the following:

6. That the Winnipeg Public Service report back annually to Council on the Winnipeg Climate Action Plan beginning in 2019.

ADMINISTRATIVE REPORT

Title: Winnipeg Climate Action Plan – Year 1 Update

Critical Path: Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
L. Mierau	M. Jack	P. Olafson, Interim CFO	M. Ruta, Interim CAO

EXECUTIVE SUMMARY

The ***Winnipeg Climate Action Plan: Planning for Climate Change. Acting for People*** (The Plan) outlines the City of Winnipeg and the broader community's commitment to work together. The Plan received unanimous support from Council on September 20, 2018 and was approved for implementation.

Progress on the Plan's actions include key activities related to corporate sustainability initiatives and enhanced internal communications, updated corporate emissions inventory, building energy benchmarking, pilots and studies on fleet electrification, bus rapid transit expansion, and the development of the long term vision and strategy for Winnipeg's urban forest, parks, and infill. In September 2019, Mayor Bowman announced the One Million Trees Challenge aiming to plant one million trees before the City's population reaches one million people which is an important step to enhancing climate resiliency.

A key 2030 performance indicator related to the waste sector was realized in 2019 by securing the federal funding support to improve the Brady Road Resource Management Facility Landfill Gas Capture System. Upon completion, this expansion will improve the system's methane collection efficiency to 75% and be the equivalent emission reduction of taking 240,000 cars off the road annually.

The Corporate GHG Update and Forecast Report, new Plan Summary communication document and a detailed status update of each individual short-term action are found in Attachments 1, 2 and 3 respectively.

Results of a survey of all departments indicate that of the 77 short-term actions identified in the Plan, approximately 40% were accomplished or underway using existing resources, 30% were partially funded, and approximately 25% required entirely new sources of funding in order to be implement

As per Section 7 of the Plan, successful implementation of the Actions requires increased funding levels and staff resources. This report includes several related recommendations.

RECOMMENDATIONS

1. That, as per Direction 1.2 of Winnipeg's Climate Action Plan, the Public Service undertake detailed financial, energy and emissions mapping and modeling to understand the costs and benefits of implementing the Plan. The funding to conduct this modeling, $200,000, be referred to the 2020 Budget process.

2. That, as per Direction 1.2 of Winnipeg's Climate Action Plan, the establishment of a Climate Action Reserve Fund be referred to the 2020 Budget process with consideration for a minimum allocation of $500,000.

3. That, as per Direction 7.1 of the Winnipeg's Climate Action Plan, 1 FTE located within the Office of Sustainability be referred to the 2020 Budget process to lead the development of Winnipeg's Climate Adaptation and Resiliency Strategy.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On September 20, 2018, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment that the Winnipeg Public Service report back annually to Council on the Winnipeg Climate Action Plan beginning in 2019. This report provides an update on year 1 of Plan implementation.

IMPLICATIONS OF THE RECOMMENDATIONS

The report recommendations have a combined financial impact of $808,779 in 2020 decreasing to $610,390 in 2021 which is recommended to be referred to the 2020 budget process.

HISTORY/DISCUSSION

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released its report about extreme weather, rising sea levels, and sea ice retreat as a consequence of one degree of global warming that the world is already experiencing. Scientists highlighted a number of climate change impacts that could be avoided by limiting warming to 1.5 degrees warming compared to 2 degrees.

Climate action includes two important aspects: mitigation and adaptation. Mitigation actions focus on reducing the use of fossil fuels to lessen the severity of impacts in the long term. Adaptation actions relate to preparing and planning for the impacts on ongoing climate change that is currently being experienced.

On November 25, 1998, Council passed a resolution signing on to the Federation of Canadian Municipalities (FCM) Partners for Climate Protection Program (PCP), committing the City to establish both corporate and community-wide greenhouse gas emissions reduction targets.

In 2006, the Corporate *Climate Change Action Plan* (CCAP) was adopted by Council targeting a 20% reduction in corporate emissions below the baseline year of 1998. A 2007 progress report demonstrated that the 20% target had nearly been achieved. In 2009, the Public Service submitted the 2008 annual report on corporate CCAP as well as a proposed strategy for achieving a further 20% emission reduction.

On July 10, 2011, Council adopted *A Sustainable Winnipeg* (an *OurWinnipeg* Direction Strategy), which re-affirmed Council's prior target resolutions for the corporate and community *Climate Change Action Plan*, directed the Public Service to establish corporate GHG targets for the years 2020 and 2035, and to create a complementary corporate energy plan to reduce energy consumption and promote the use of renewable energy sources.

In 2013, a Federation of Canadian Municipalities' Green Municipal Fund grant of $94,875 was awarded to the City of Winnipeg to support the development of the Winnipeg Climate Action Plan.

On September 20, 2018, *Winnipeg's Climate Action Plan: Planning for Climate Change, Acting for People* received unanimous support from Council. With Council's approval, Winnipeg achieved Milestone 3 under the Partners for Climate Protection Program and the 2009 Corporate Climate Action Plan was rescinded.

The greenhouse gas reduction targets approved under Winnipeg's Climate Action Plan (the Plan) are as follows:

- 20% reduction in GHG emissions by 2030 relative to 2011 levels
- 80% reduction in GHG emissions by 2050 relative to 2011 levels

The Plan outlines the City of Winnipeg and the broader community's commitment to work together and provides a framework to effectively mitigate climate change by reducing greenhouse gas emissions. It is the result of several years of work by the City of Winnipeg, community leaders, stakeholders, technical experts and the public.

The Plan includes sector specific targets related to transportation, buildings, and waste which are responsible for 50%, 35% and 15% respectively according to the community inventory of total GHG emissions conducted for the 2011 baseline year. These sectors are accompanied by a suite of directions and actions envisioned to achieve emission reductions in collaboration with the community.

In order to meet the emission reduction targets outlined in the Plan, the City will need rigorous information and insights to support decision-making and the business case for programming and infrastructure investment. The development of more detailed and updated modeling of community emissions will provide a clearer pathway to meet Council's 2030 and 2050 GHG reduction targets. It is estimated that up to $200,000 is required to hire a consultant to assist with this work and an application was submitted to the Innovation Fund in the summer of 2019 requesting funding support to complete this work.

Economic modeling of a low carbon path to meet Council's targets will provide many benefits including support to support to departments for business case development to advance and support the actions for which they are accountable under the Plan. Modeling would include both macro and micro analysis of the economic impacts of individual actions contained in the Plan, as well as an updated community-wide inventory of emissions that meets the Global Protocol for Community-Scale GHG Emissions.

The initiation of a climate adaptation and resiliency strategy is identified as a critical short term action. For example, the Prairie Climate Centre provides scientific data to show that Winnipeg has historically experienced heat waves lasting 3-4 days. By 2051-2080, these heat waves are predicted to last longer than 7 days. Heat waves can have devastating effect on the health of our communities, as illustrated by more frequent heat waves across North America and Europe. According to the World Health Organization and the Public Health Agency of Canada, extreme heat and high temperatures are linked to premature death, heat stroke, and aggravation of heart and respiratory diseases. Vulnerable populations such as the elderly, children, and people who are structurally disadvantaged (e.g. homeless, those with limited economic means) are at particular risk of heat-related morbidity and mortality. The City has a key role to play in protecting and enhancing green spaces and the urban forest for shade and to mitigate the urban heat island effect. Moreover, extreme heat is just one example of a climate impact that Winnipeg needs to be adapting and preparing for as part of a long term climate resiliency strategy.

A new FTE located in the Office of Sustainability is recommended to lead the Climate Adaptation and Resiliency Strategy on behalf of the City thereby fulfilling Direction 7.1 (p. 53) and the short-action identified in the Plan. Strategy development includes extensive research, analysis, planning, and the development of an implementation and monitoring framework to identify Winnipeg-specific actions that will help to better prepare and respond to climate impacts on our community and environment. The Strategy would include an in-depth risk and vulnerability analysis in collaboration with all departments.

In the past few months alone, Winnipeg has experienced summer heat warnings issued by Environment Canada, record breaking rainfall in September, followed by unprecedented October flooding and a devastating snowstorm which is expected to cost millions in recovery costs.

Winnipeg is not alone. Many communities are facing serious threats related to public health, infrastructure costs, economic viability, and social equity associated with climate change. Proactive climate adaptation planning can help avoid significant financial costs associated with climate-related disasters. For example, Public Safety Canada estimates that every dollar invested in disaster mitigation saves $3-$5 in recovery costs. Research from the Insurance Bureau of Canada provides further evidence that foresight reduces disruption to local economies and communities

As per Section 7 of the Plan (p. 56), successful implementation of the Actions requires increased funding levels, staff resources, enhanced corporate collaboration across all City departments, improved monitoring and community collaboration. The City has continued to convene its cross-departmental Climate Change Working Group to ensure that implementation is coordinated and shared throughout the administration.

In 2019, the Office of Sustainability, through the Climate Change Working Group, conducted a survey of all departments regarding the funding status of actions for which they are accountable under the Plan. They were invited to provide input regarding resources (funding, staff) and current status.

Findings from the survey showed that, of the 77 actions identified as short term (2018-2022) priorities:

- 40% of them were “green lighted” meaning they were accomplished or are underway using existing resources;
- 30% were identified as partially funded; and
- 25% were “red lighted” which is to say that they require entirely new sources of funding.

Direction 1.2 includes the short-term action to: “establish a dedicated Climate Action Reserve Fund to support implementation of the Plan” (p. 28). The establishment of a Climate Action Reserve Fund (CARF) with a minimum annual allocation of $500,000 will help to address the gap in funding to support department’s efforts to implement the Plan. The funds could be used to support actions that provide low cost per tonne of GHG avoided.

For example, recommissioning of City-owned buildings has been shown to provide significant payback with and can be identified from benchmarked Portfolio Manager Information, total utility usage data or information from maintenance/operational staff.

To illustrate the scope of costs involved with the Plan, Direction 1.3 includes the short-term (2018-2022) action to conduct: “regularly scheduled recommissioning and retrofits in existing facilities, guided by data from benchmarking” (p.29). Municipal Accommodations has approximately 1000 buildings within its inventory and assuming $40,000 as an average cost per retrofit and recommissioning, this action would cost upwards of $40,000,000. The CARF would be one source of funding to begin to support this action.

As an important part of annual updates to Council, the Public Service will continue to monitor progress towards implementation of short-term actions (2018-2022). The intent is to publicly report on progress on an annual basis, beginning in 2019.

A review and update of the Strategic Opportunity areas will be completed during the last year of each Council term, so that City departments can collectively update changing priorities and needs to reflect completed projects, technology innovations, and continuous learning.

As well, the Office of Sustainability aims to secure funding to update the community GHG inventory by 2020 in order to update community emissions inventory and compare against the 2011 baseline year to show that the City is on track to reach Council’s mandated GHG emission reduction targets for 2030 and 2050.

Summary of Strategic Opportunity 1 – 7: Short-term Actions (2018-2019)

Of the total of 139 actions described in the Plan, 77 of them have been characterized as short term (2018-2022). Key initiatives that align with the Actions described in the Plan are highlighted below. The list is not exhaustive. A more detailed status update on each of the short-term actions and their budget status is provided in Attachment 3.

Strategic Opportunity #1: Corporate Leadership

- *Updated corporate GHG inventory* – The Office of Sustainability has updated the City’s corporate GHG inventory to identify the emissions trend and forecast from its own buildings and operations (see Attachment 1).
- *Enhanced communication efforts* – The Office of Sustainability has undertaken efforts to communicate the Plan as well as other sustainability-related initiatives. This has been accomplished through the use of the City’s intranet, employee newsletters, videos and the recently developed Summary Document to the Plan (see Attachment 2).

- *Office Composting* – Services are currently provided in three City buildings with planning initiated for additional locations. At City Hall, approximately 6,890 kilograms of compostable material was collected in the first eight months of the program and resulted in approximately 6 tonnes of CO2e (or equivalent of removing 1 passenger car from the road each year). In the first four years of the PPD program located at 65 Garry Street, more than 23,000 kilograms of organic material has been diverted.
- *Transparency in Building Energy* – The City has implemented energy benchmarking for more than 500 City-owned Buildings (using Portfolio Manager) to identify opportunities for improved energy performance and is leading a voluntary energy benchmarking, labelling and disclosure program.
- *Electric Vehicles* - The Winnipeg Fleet Management Agency is piloting two Chevy Bolt electric vehicles deployed to two different places. Outcomes of the pilot will inform next steps on fleet electrification.
- *Sustainable Commuting* – The City supports *GoManitoba* as a way to connect staff and help facilitate carpools, promote public transit use, and match bike and walk mentors. In the fall of 2019, the 'GoManitoba Department SignUp Challenge' was launched to incent employee carpooling. Over 400 employees competed in the 2019 *Commuter Challenge*, a week-long friendly competition between Canadian cities and workplaces. A survey of employee commuting behavior is planned for late 2019.
- *External Funding* – funding was secured from the federal government, including support received from Environment and Climate Change Canada, and Natural Resources Canada. Additional applications have been submitted related to electric vehicle charging infrastructure and community climate resiliency.
- *Decision making alignment with Climate Action Plan* - In September 2019, the Public Service was directed to consider and advise as a part of every report, whether the recommendation is consistent with the City of Winnipeg's objectives and targets with respect to reducing greenhouse gas emissions and adapting to the harmful impacts of climate change.

Strategic Opportunity #2: Empower Community Leaders and Stakeholder Collaboration

- *Local Energy Access Project (LEAP)* – Funded by FCM and led by the Canadian Urban Sustainability Practitioners (CUSP) network, the LEAP project is intended to address the issue of energy poverty while achieving emission reductions. This project involves support from a coalition of community members and organizations to develop solutions that will build climate equity and reduce GHG emissions at the household and neighbourhood level.
- *Green It, Mean It!* – The Winnipeg Public Library initiated a "Green it. Mean it!" series in 2019 with workshops that focus on people who are actively living a sustainable lifestyle. Examples of topics explored to date include: electric vehicles, low waste living, solar energy, how to use less water, and urban beekeeping.

Strategic Opportunity #3: Advancing Sustainable Transportation – Increase Mobility Options and Shift to Zero Emission Vehicles

- *Pedestrian and Cycling Strategies* - Not meeting Pedestrian and Cycling Strategies proposed goals for funding or staff levels.
- *Winnipeg Transit Electrification Study* – Winnipeg Transit is currently working to develop a plan to purchase 12-20 electric buses. The goal is to produce a detailed plan and cost estimates needed to purchase 12-20 electric buses, and to incorporate them into the bus fleet. This larger test fleet allows continuous learning about the operation and

maintenance of electric buses, and to better understand how moving toward large-scale bus fleet electrification affects Transit operations.

- *Southwest Rapid Transit Corridor* – The pedestrian and cycling pathway is expected to open in Fall 2019 and bus service to begin in the spring 2020.
- *Bike Share Innovation Strategy Program* - The Innovation Program has approved a submission for Bike Share and is currently working with the Public Works on pre-requisite by-law information.

Strategic Opportunity #4: Facilitate Compact, Complete Development and Increase Density

- *Infill strategy* – Planning, Property and Development's community consultation efforts are currently underway to advance the Residential Infill Strategy Implementation Action Plan.
- *OurWinnipeg Review* – OurWinnipeg is the City's development plan. It is under review and will result in a plan to accommodate growth sustainably over the next 25-years. The timing, relevance and endorsement of the Climate Action Plan and its targets has informed the OurWinnipeg review process and draft policy and will continue to inform city building policy detail in Complete Communities.
- *Complete Communities Direction Strategy* – the new version is planned to be designed to meet the 2030 Land Use performance indicator. This indicator states that 50% of all new residential construction will take place in strategic infill locations.

Strategic Opportunity #5: Low Carbon and Energy Efficient Buildings

- *Benchmarking, Labelling and Disclosure* – In 2019, the Office of Sustainability received a NR Can grant to implement an energy Benchmarking, Labelling and Disclosure (BLD) program in the City of Winnipeg. This voluntary program will be marketed towards the institutional and commercial sectors, and provides independent, unbiased assessment of buildings with regards to approximate annual energy usage, cost, greenhouse gas emissions and Energy Use Intensity (EUI). It will support property owners to make more informed energy decisions by helping them better understand the energy performance of their buildings.

Strategic Opportunity #6: Waste Reduction and Diversion

- *Brady Road Resource Management Facility Landfill Gas Capture System Expansion* - The Office of Sustainability collaborated with the Water and Waste Department to successfully attain federal funding through the Low Carbon Economy Fund. The $1.3 million in funding will help the City improve its Brady Road Resource Management Facility landfill gas capture system to 75% efficiency, thereby meeting a key performance indicator for 2030 and reducing GHG emissions by an estimated 1.1 million tonnes of CO2e over the 30 year lifespan of the asset. This is equivalent to the annual emissions of nearly 240,000 passenger cars.
- *Mattress Recycling* - On February 13, 2019, the Brady Road 4R Winnipeg Depot started a one-year Mattress and Box Spring Recycling Pilot Project in conjunction with Mother Earth Recycling to divert 8,000 mattresses and box springs from the landfill for recycling.

Strategic Opportunity #7: Climate Resiliency

- *Water Quality* - $100,000 from the Water and Waste Department budget was used to support the Netley-Libau Marsh restoration project.
- *Urban Forest Strategy* – In 2019, the contract was awarded to assist the Public Works Department with the development a long term vision and strategy for sustaining Winnipeg's urban forest.

- The *Recreation & Parks Strategies* project is ongoing and will be complete in 2020. Current efforts and future opportunities to mitigate and adapt to climate risks over the next 25 years will be included.
- *Climate Change Adaptation Workshop* – The Climate Change Working Group participated in a half day workshop to explore the risks and vulnerabilities of climate change. The Office of Sustainability has requested 1 FTE in the 2020 Budget to lead the development of Winnipeg's climate adaptation and resiliency strategy.
- *One Million Trees Challenge* - In September 2019, Mayor Bowman announced the Challenge aiming to plant one million trees before the City's population reaches one million people.

FINANCIAL IMPACT

Financial Impact Statement

Date: October 21, 2019

Project Name:

Winnipeg Climate Action Plan - Year 1 Update

First Year of Program **2019**

	2019	2020	2021	2022	2023
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ 808,779	$ 610,390	$ 612,456	$ 614,581
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ 808,779	$ 610,390	$ 612,456	$ 614,581
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ -	$ 808,779	$ 610,390	$ 612,456	$ 614,581

Additional Comments:

1. Direct costs above represent the following:
- A one-time cost of $200,000 for 2019 for the greenhouse gas and economic modeling of the Winnipeg Climate Action Plan.
- Climate Action Reserve Fund of $500,000
- Salaries and benefits of 1 FTE WAPSO Exempt Grade 3 - Step 21 (2020 - $108,779, 2021 - $110,390, 2022 $112,456, and 2023 - $114,581.

2. The Office of Sustainability does not have budget for the above costs and as such all amounts required will be referred to the budget process.

(Original Signed by T. Yanchishyn)

Tanis Yanchishyn, CPA, CA
Manager of Finance (Campus)
Corporate Finance Department

CONSULTATION

This Report has been prepared in consultation with:

Planning, Property and Development
Public Works
Water and Waste
Winnipeg Transit
Winnipeg Parking Authority
Winnipeg Fire and Paramedic Service
Corporate Finance
Winnipeg Fleet Management Agency
Office of Public Engagement
Golf Services

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with *A Sustainable Winnipeg*, Section 09-1, which directs the Public Service to:

- Create and maintain a community-wide Climate Change Action Plan to reduce Winnipeg's greenhouse gas emissions by 6% below 1998 levels.
- Establish a community-wide greenhouse gas reduction target for 2020 and 2035

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

This report is in accordance with direction provided in the Winnipeg Climate Action Plan and the Council Minute 572, recommendation #6.

SUBMITTED BY

Department: Office of the Chief Administrative Officer
Division: Office of Sustainability
Prepared by: Lindsay Mierau
Date: October 24, 2019
File No:

Attachments:

Attachment 1: Corporate GHG Update and Forecast Report

Attachment 2: Winnipeg Climate Action Plan Summary

Attachment 3: Status update on Short-term Actions (2018-2022)