

Present:

Councillor Bose, Vice-Chair
D. Jack
M. Lamont
K. Purton
S. Sajda
D. Smith

Absent:

Mayor Locke, Chairperson

Staff Present:

N. Aven, Director Parks Recreation & Culture
Y. Yohannes, Director of Engineering Operations
L. Lensink, Climate Policy Advisor
S. Meng, Administrative Assistant

Councillor Bose assumed the role of the Chair.

A. ADOPTIONS

1. Adoption of the Agenda

It was Moved by S. Sajda
Seconded by K. Purton
That the agenda of the Environment and
Climate Change Committee meeting of February 21, 2024, be adopted.
Carried

2. Adoption of the Minutes

(a) January 10, 2024 Environment and Climate Change Committee

It was Moved by M. Lamont
Seconded by S. Sajda
That the minutes of the Environment and
Climate Change Committee meeting of January 10, 2024, be adopted.
Carried

D. Jack and D. Smith joined the meeting at 5:16 p.m.

B. DELEGATIONS

1. Safe Cities Network

Sunil Singal, Climate Campaigner, Stand.earth and Larry Barzelai, Family Physician, Chair of BC Canadian Association of Physicians for the Environment (CAPE)

The delegation provided a presentation regarding the reasons for adopting a strong Zero Carbon Step Code policy for new buildings. The following information was highlighted:

- The BC government introduced a new provincial standard in May 2023 as part of Clean BC, allowing local governments to restrict carbon emissions from new buildings. This standard includes two distinct codes: the Energy Step Code, which focuses on energy use by examining insulation thickness and air tightness, and the Zero Carbon Step Code, which targets greenhouse gas emissions specifically for new construction. It is important to note that these are separate codes with independent regulations.
- The Zero Carbon Step Code consists of four levels, each with increasing requirements for reducing building emissions. These levels range from measuring emissions without reduction to full electrification. It is anticipated that the provincial government will mandate local governments to adopt one of these levels, starting at the end of the current year, with the highest level mandated by 2030.
- At least 22 local governments, including two regional districts, one First Nation, and the UBC campus, have adopted the Zero Carbon Step Code policy. Roughly a dozen more across BC are considering adoption, with at least five expected to do so soon. Many of these have opted for the highest level, with Burnaby and other Lower Mainland municipalities leading the way, implementing it for large buildings this year and smaller buildings next year.
- Implementing the Zero Carbon Step Code at the highest level in Surrey, one of BC's fastest-growing cities, could significantly reduce emissions and align well with the city's climate change action strategy. Buildings are a major emission source in Surrey, accounting for 42% of total emissions, primarily from burning natural gas. Action #4 of Surrey's strategy focuses on healthy zero-carbon buildings, aiming to avoid carbon pollution and enhance energy efficiency from the outset of construction. The Zero Carbon Step Code enables this by promoting all-electric buildings, which not only reduces emissions but also saves taxpayers money in the long term due to the efficiency of electric appliances.
- The province is considering implementing a retrofit code and high-efficiency equipment standards, which would require buildings with inefficient gas furnaces and boilers to be retrofitted later. Addressing this issue upfront would prevent costly retrofit programs in the future and align with efforts to reduce methane emissions, a major obstacle to meeting BC's carbon targets. Despite government approvals of fossil fuel projects, there is a societal need to transition away from methane and natural gas toward healthier alternatives.

- The World Health Organization and the United Nations emphasize methane as a significant contributor to pollution, potentially more detrimental to carbon targets than carbon dioxide. Methane poses health risks, contributing to air pollution-related deaths in Canada and leading to various diseases. Studies indicate increased asthma rates in homes using natural gas, and gas stoves emit harmful substances comparable to indoor smoking. With climate events like extreme temperatures and wildfires intensifying, there is a pressing need for Canada to lead in reducing fossil fuel consumption and transitioning to electrification. Addressing environmental concerns is crucial for the well-being of future generations, as evidenced by the pessimism among young people about their future due to current environmental practices. Implementing step codes, particularly adopting the highest standards, is a step towards improving health outcomes in BC and globally, though more actions are needed to mitigate environmental impact.

In response to questions from the Committee, the following information was provided:

- The concerns regarding cost associated with the Energy Step Code do not apply to the Zero Carbon Step Code, as it focuses solely on greenhouse gas emission reduction. Modeling data suggests that the additional cost for builders would be no more than 1.5%, with potential long-term savings due to electrification. Retrofits to comply with high efficiency standards for gas-based systems can be expensive, ranging from \$10,000 to \$20,000. Burnaby and New West have already assessed industry readiness and received positive feedback, indicating industry preparedness for adoption. Most municipalities north of the Fraser River have already adopted the highest level of the Zero Carbon Step Code by the first quarter of the following year. Therefore, there are minimal barriers to implementing the Zero Carbon Step Code now.
- Currently, the City is entering into the consultation process with the industry and is projected to adopt the Zero Carbon Step Code policy later this year. The building department has gone through several staff changes and is planning to recruit staff to take on this process as a priority.
- A significant challenge in promoting sustainable energy practices is the powerful lobby of fossil fuel companies, such as Fortis, which have significant resources and influence. This lobby has actively engaged with policymakers, presenting multiple deputations at Vancouver City Hall and potentially hindering efforts to transition away from fossil fuels due to their vested interests in maintaining the status quo.
- Implementing the zero carbon policy for new buildings is crucial, especially with the upcoming provincial policy to increase housing density. Acting promptly will prevent future retrofitting expenses mandated by the province, reducing costs for taxpayers and cities. The province's commitment to offering subsidies or rebates for heat pumps further supports this initiative.

- Regarding renewable natural gas (RNG), it is important to note that while Fortis has advocated for its use in buildings, achieving 100% RNG usage is currently not feasible, as it can only produce about 6% renewable gas at present. While RNG has potential for decarbonizing industries like cement production, its health implications suggest it may not be suitable for widespread building use. Therefore, it is essential to recognize its limitations and focus on utilizing RNG where it can have the most significant impact, rather than relying solely on it for building decarbonization.
- Despite recent reports of record drought levels prompting increased electricity imports, BC Hydro has historically exported more electricity than imported, with exports exceeding imports in the past five years. BC Hydro maintains surplus capacity until at least 2029, with plans for further diversification through initiatives such as "Call to Power," which includes projects like river, windmill, and solar energy. This diversification effort aims to ensure sufficient power generation, with upcoming projects including wind and solar initiatives, starting with Mission.

The Committee provided the following comments:

- The BC Building Code was amended on December 1st, 2020, introducing the solar hot water ready regulation. While 49 out of 161 jurisdictions in BC have adopted this regulation, Surrey is not among them. Embracing solar readiness in new buildings could be a positive step forward for Surrey in promoting sustainable energy practices.
- There is skepticism regarding BC Hydro's estimates of future energy demand, especially considering the increasing need for energy due to technological advancements and computerization. Concerns exist about the dependency on energy sourced from the north, where glaciers are located, without sufficient data or evidence supporting these projections.
- Vice Chair made a statement that the committee agrees with the need to support the implementation of the step code policy, particularly aiming for level 3, with reservations about the feasibility of levels 4 and 5 in the near future.

It was

Moved by S. Sajda

Seconded by M. Lamont

That the Environment and Climate Change

Committee support the adoption of the Zero Carbon Step Code policy.

Carried

C. NEW BUSINESS

1. Climate Change Action Strategy Near-Term Priorities

Larisa Lensink, Climate Policy Advisor

The Climate Policy Advisor provided a presentation regarding the overview of Transportation and Buildings Quick-Start actions from the Climate Change Action Strategy. The following information was highlighted:

- The Climate Change Action Strategy (CCAS) prioritizes sustainable transportation solutions, aiming for easily accessible networks of sidewalks, bike paths, and frequent transit by 2050 to reduce reliance on cars and supporting the transition to zero-emission vehicles. The Safe Zero-Carbon Transportation component has two primary goals: prioritizing walking and public transit over personal vehicles and transitioning to zero-emission vehicles, supported by various necessary shifts.
- The CCAS includes 37 Quick-Start actions to be initiated within the first two years of strategy adoption, forming the near-term priorities of CCAS implementation.
- T1.1: This action recognizes that funding for sustainable transportation relies on a variety of sources, including contributions from other levels of government and private development. This action is an ongoing effort, as a regular part of the Transportation Planning team's workplan involves exploring new funding streams, and this is expected to continue throughout 2024.
- T1.3: This action is based on the idea that a "complete street" is safe and comfortable for all users in all weather conditions. This means integrating protected cycling and pedestrian infrastructure with green infrastructure like trees and rain gardens. This action involves piloting this concept on a few key corridors to test and showcase the approach. Staff are actively working to identify suitable locations. Progress is expected within the next year pending site selection and funding.
- T1.5: This action is similar to the "complete streets" action but is focused specifically on enhancing pedestrian infrastructure and spaces within each town center. This work is being led by the Transportation Planning team and is dependent on funding sources.
- T2.1: Finalizing the strategic cycling network for North Surrey town centers will coincide with the completion of the Surrey Transportation Plan, expected to progress in the next year. This work has been scoped and informed by engagement on the Surrey Transportation Plan.
- T5.1: Planning for the e-bike share pilot program in Surrey City Centre and Guildford has been completed and the program is set to launch in 2024.
- T5.2: This action aims to provide safe and convenient bike parking at city facilities. This will involve exploring opportunities at each facility and considering optimal placement, design, and accessibility. This work is likely not to advance quickly until the work to develop a facilities energy transition plan is further along.
- T6.3: The action involves expanding current EV-ready requirements in the Zoning Bylaw beyond residential uses to include additional uses such as commercial or office space, facilitating workplace and opportunity charging. This initiative, currently in the planning stage, is dependent on additional staffing resources.

- The 2050 vision for the Healthy Zero-Carbon Buildings component is for all buildings to be healthy, energy efficient, zero-carbon and resilient to the impacts of climate change. There are two goals within this component, relating to new and existing buildings, supported by a number of shifts.
- B1.1: The Zero Carbon Step Code is the main tool that enables local governments to set emissions limits for new buildings. Staff are actively exploring an approach to Zero Carbon Step Code adoption in Surrey. Preliminary analysis has been conducted, and the next steps involve engaging with industry and the public to understand the implications for development and affordability. This input will inform the recommended approach to be presented to Council.
- B2.1: The City has retained a consultant to examine potential barriers to high performance, low carbon buildings in the City's building design guidance for new construction. Workshops with staff and the development industry have been conducted to gather insights, and recommendations are being developed. Upon completion, updates to building design guidance and relevant bylaws will be considered.
- B2.2: The Sustainable Development Checklist is submitted with development applications and is intended to encourage more sustainable land use and building design measures. This action involves evaluating the current process and developing a new tool to encourage green building features. Progress on this work is likely to follow some of the more urgent Building-related actions.
- B4.1: This action recognizes that the Building Division needs dedicated resources to effectively implement Energy Step Code and potential Zero Carbon Step Code requirements. The first step is hiring additional staff who can lead a review of current data collection and compliance processes. Planning for this work has started and is expected to progress this year.
- B4.2: The next step following the review of the Green Building program involves enhancing processes to integrate and track energy and greenhouse gas (GHG) data for building permits. However, this initiative is anticipated to begin only after the completion of the 4.1 review.
- B5.2: There is one Quick-Start Action related to existing buildings to develop a data-based decision support tool to support retrofit program and policy development. The tool is in advanced stages of development, with updates to refine it by incorporating real data and improving data sources planned for this year.

In response to questions from the Committee, the following information was provided:

- Rain garden is a type of green infrastructure that collects stormwater and enables improved infiltration into the soil.
- The "complete street retrofits" pilot initiative aims to boost active transportation by testing innovative combinations of protected cycling and walking infrastructure with green infrastructure elements. By showcasing benefits in a shorter timeframe, it seeks to pave the way for potential expansion into larger, long-term programs.
- CCAS has been adopted by Council, including a number of interim targets, and is complementary to other Council-adopted plans.

- Director of Engineering Operations stated extensive outreach efforts have been undertaken throughout the city to gather feedback from residents regarding their expectations for Active Transportation infrastructure, with presentations from the Transportation group emphasizing the importance of citizen input.
- The Transportation Planning team is looking at good candidates for pedestrian green street conversions in terms of high demand areas for pedestrians and opportunity to incorporate green infrastructure elements to improve comfort and resiliency of those spaces.
- The City has consistently tracked operational emissions stemming from vehicles and buildings over time, not embodied carbon of materials used and their life cycle impacts. The next step involves shifting towards a cradle-to-grave approach to address this aspect more comprehensively.
- The transition from the Sustainability Dashboard to the Climate Action Tracker is underway to better align with CCAS implementation, featuring different data tracking components. Data availability remains a challenge, although efforts are ongoing to access new sources such as the updated transportation data recently released by the Province.
- The Climate Action Tracker is intended to be the primary platform for reporting on progress, with plans to utilize it for annual reports to Council.

The Committee provided the following comments:

- A committee member mentioned that the original part of Clayton served as a trial for infiltration, which lack curbs and gutters but have swales along the roads, and infiltration is effective due to natural water flow. Despite irrigation usage, good infiltration occurs, highlighting the need for the City to explore different infiltration methods more extensively.
- A committee member raised concerns around not getting enough rain into the soil throughout the city.
- A committee member stated that maintaining infiltration is crucial for sustaining irrigation water and ensuring the health of fish populations in the Serpentine, Nicomekl, and Little Campbell rivers, all of which are groundwater-fed.
- A committee member stated that car-free streets are observed to significantly boost pedestrian traffic and benefit local businesses despite initial concerns, as surveys reveal a diverse mix of cyclists, drivers, and pedestrians frequenting these areas.
- A committee member stated the Newton car free days had parking as an issue, indicating that the event was not achieving its intended purpose.

2. DCCs for Parkland and BCS Acquisition

Neal Aven, Director, Parks

The Director, Parks, provided a presentation regarding the background and overview of the City's current Parkland and BCS Acquisition Development Cost Charge. The following information was highlighted:

- Development Cost Charges (DCCs) are financial contributions from the development community used to expand and upgrade transportation and utility infrastructure, as well as to acquire and develop new Parkland to support growth. DCCs are also mandated by regional authorities such as Metro Vancouver and TransLink and are charged to new residential developments, including single-family homes, multifamily homes, and commercial/industrial developments. They are paid at the time of subdivision or building permit stage depending on the type of development. DCCs specifically contribute to Parkland and BCS land acquisition and development, including amenities like sports fields and playgrounds.
- DCC rates in Surrey are updated annually to reflect the updated cost of lands identified in the parkland acquisition program and are adjusted relative to new growth projections. These rates include citywide charges as well as area-specific charges for neighborhoods like Redwood Heights and Campbell Heights. Factors impacting DCC rates include land value, population growth rate, housing type, and a municipal assist factor, with the current city contribution rate set at 1%.
- In 2021, a citywide parkland acquisition DCC rate was introduced to fund the acquisition of lands for the Green Infrastructure Network (GIN), identified in the Biodiversity Conservation Strategy (BCS). GIN consists of interconnected open spaces that provide natural benefits for wildlife, protect against climate change impacts, and contribute to a sustainable and livable city. The BCS component is being phased in over five years, aiming to acquire approximately 1000 acres of GIN land estimated to cost a billion dollars over a 50-year timeframe. This equates to around \$20 million per year, with the collection intended specifically for land acquisition purposes, continuing the work of the previous committee iteration.
- Timing poses a challenge in collecting funds for Parkland and BCS land acquisition, with the current collection rate being low due to the timing of developer contributions. However, as development progresses, the funds allocated for Parkland and BCS are expected to increase gradually.
- In 2023, a DCC increase for parkland was implemented over a 10-year period to address rising costs and accommodate the expansion of the parkland program. This reflects ongoing efforts to keep pace with market trends. Expenditures include parkland development for building sports fields, parkland acquisition, which fluctuates annually based on available properties, with a total of \$24 million received from DCC in 2022, including BCS allocations.

In response to questions from the Committee, the following information was provided:

- DCC funds in local government are specifically allocated for building playgrounds, sports fields, and play equipment. Additionally, there exist best practices guides for DCCs to ensure effective utilization of these funds.
- Director of Engineering Operations stated the 1% the city contributes to DCC rates is set by the municipality. The province has some assist factor throughout the years.
- The introduction of the BCS component for DCCs aims to acquire approximately 1000 acres of Green Infrastructure Network (GIN) land, prioritizing areas where the GIN is identified.
- The OCP and Parks, Recreation & Culture Strategic Plan (2018-2027) set a target of 4.2 hectares of parkland per 1000 residents. However, due to rising population and the scarcity and cost of land, it may become increasingly challenging to meet this target in the future.
- While achieving the 4.2-hectare per thousand residents target may become challenging due to fluctuating development trends, ensuring proximity to parks within half a kilometer for every resident remains a priority to facilitate access to green spaces.
- The annual collections for BCS land acquisition is targeted at approximately \$20 million, increasing annually from 20% to 100% for the next 5 years. As Year 4 approaches, the DCC bylaw is being updated to facilitate the collection of these funds. Although developers pay DCC at the time of building permit, analysis reveals that specific BCS funds collected have not been utilized immediately for land acquisition due to incremental collection and lag time.
- Director of Engineering Operations stated that DCC funds are collected at the time of building permit issuance, yet there exists a lag period leading up to the permit stage. This lag refers to the delay in fund collection, typically including a one-year grace period after the implementation of the DCC bylaw, during which funds are collected for developments falling within the bylaw's jurisdiction.
- Before the 2021 BCS initiative, the city's Parkland program already required the allocation of Parkland through DCCs, some of which included BCS corridors. While this did not explicitly mandate BCS funding for BCS lands, it aimed to acknowledge the need for diverse Parkland that accommodates various recreational activities, emphasizing the importance of future efforts in this direction.
- DCC fees are calculated based on the square footage of town houses or apartments. Staff will annually review property listings to estimate market values using a broad appraisal process.
- Director of Engineering Operations stated that DCC increases require approval from the province, extending to the DCC bylaw. The portion of DCCs for townhouses or single-family dwellings varies based on the specific area and may reach up to 5%.

- The Charles Richardson Nature Preserve, located at 88th Ave and 168th St, encompasses parkland managed by the city, including urban forest areas and BCS corridors. While the city owns a portion of the GIN corridor, it also manages environmentally significant land beyond this corridor for parkland use, which includes natural and recreational values. There is no indication of double counting, as all such areas are classified and managed as parkland.
- Director of Engineering Operations stated that the BCS DCC funds are protected and use for that purpose of BCS land acquisition only.

The Committee provided the following comments:

- A committee member stated that transparency and accountability should occur and efforts should be made to prevent double counting of lands by separating parkland acquisition funds from BCS lands.
- A committee member stated that it took seven years from the establishment of the BCS policy in 2014 for the city to develop funding mechanisms, with significant lag time potentially resulting in a minimum of \$100 million collected by 2021. There was an assurance of transparent accounting for BCS land acquisition funds, including annual budget reports detailing expected and actual funds collected, but this accountability measure was subsequently removed.
- A committee member stated that there have been discussions about potential funding solutions to address the significant lag in land acquisition, with the Township of Langley's example of a successful environmental levy serving as inspiration. This levy, supported by 65 to 75% of residents, could serve as a model for Surrey. One suggestion involves implementing an optional environmental levy for land acquisition, where residents contribute \$5 each annually.
- A committee member stated that Surrey Environmental Partners advocates for expanding the use of the Green City Fund to include the acquisition of biodiversity conservation lands, especially focusing on smaller units or sites.

K. Purton left the meeting at 6:42 p.m.

K. Purton rejoined the meeting at 6:44 p.m.

D. OTHER BUSINESS

1. Amend Meeting Schedule

It was
 Environment and Climate Change Committee be amended to change next scheduled meeting date on April 10, 2024 to April 17, 2024 at 5:00pm.

Moved by M. Lamont
 Seconded by S. Sajda
 That the 2024 Meeting Schedule for the
Carried
 Opposed by K. Purton

2. Roundtable

A roundtable discussion ensued as follows:

- The Chair request staff to ask Director Project Delivery to present on the 72nd Avenue Extension between 152 Street and 176 Street and to provide a 5 minute update on park protections on Bear Creek Park at the Environment and Climate Change Committee.
- A committee member raised concerns brought up in the past regarding food security, water conservation, and backyard gardening and suggest initiatives like providing garbage, recycling, and green waste containers to all residents, as well as making rain barrels available citywide.

It was

Moved by D. Smith

Seconded by S. Sajda

That the Environment and Climate Change

Committee request the Manager of Engineering to provide a report to the committee on the feasibility of voluntary rain barrel program.

Carried

E. NEXT MEETING

The next meeting of the Environment and Climate Change Committee is scheduled for 5:00pm on April 17, 2024.

F. ADJOURNMENT

It was

Moved by M. Lamont

Seconded by K. Purton

That the Environment and Climate Change

Committee meeting be adjourned.

Carried

The Environment and Climate Change Committee meeting adjourned at 7:21 pm.

Jennifer Ficocelli, City Clerk

Councillor Mike Bose, Vice-Chair