metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT
CLIMATE ACTION COMMITTEE

MEETING

Thursday, May 9, 2024
9:00 am
28th Floor Committee room, 4515 Central Boulevard, Burnaby, British Columbia
Webstream available at https://www.metrovancouver.org

A G E N D A[1]

A. ADOPTION OF THE AGENDA

1. May 9, 2024 Meeting Agenda
That the Climate Action Committee adopt the agenda for its meeting scheduled for May 9, 2024 as circulated.

B. ADOPTION OF THE MINUTES

1. April 4, 2024 Meeting Minutes
That the Climate Action Committee adopt the minutes of its meeting held April 4, 2024 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment *pg. 10*
That the MVRD Board direct staff to engage with interested audiences on options for developing a supportive framework and potential requirements to reduce health-harming air contaminant emissions from small non-road equipment, as described in the report dated April 14, 2024, titled "Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment".

[1] *Note: Recommendation is shown under each item, where applicable.*

2. BC Utilities Commission Decisions and Local Government Interests in the Energy Transition *pg. 31*

That the MVRD Board:

a) Receive for information the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition"; and

b) Direct staff to forward a copy of the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition" to the Mayors and Council Members of each Metro Vancouver member jurisdiction.

3. Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings *pg. 54*

That the MVRD Board receive for information the report dated April 16, 2024, titled "Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings".

4. Manager's Report *pg. 63*

That the Climate Action Committee receive for information the report dated April 29, 2024, titled "Manager's Report".

F. INFORMATION ITEMS

1. Regional Food Systems Strategy – Project Launch *pg. 70*

2. Climate Impacts on the Water Supply Areas *pg. 90*

G. OTHER BUSINESS

H. RESOLUTION TO CLOSE MEETING

Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

That the Climate Action Committee close its meeting scheduled for May 9, 2024 pursuant to section 226 (1) (a) of the *Local Government Act* and the *Community Charter* provisions as follows:

90 (2) A part of a council meeting must be closed to the public if the subject matter being considered relates to one or more of the following:

(b) the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party;

I. ADJOURNMENT

That the Climate Action Committee adjourn its meeting of May 9, 2024.

Membership:

Dominato, Lisa (C) – Vancouver
Johnstone, Patrick (VC) – New Westminster
Baillie, Tim – Langley Township
Berry, Ken – Lions Bay
Bose, Mike – Surrey
Carr, Adriane – Vancouver
Gu, Alison – Burnaby
Lahti, Meghan – Port Moody
Marsden, Dennis – Coquitlam
McCutcheon, Jen – Electoral Area A
McNulty, Bill – Richmond
Pope, Catherine – North Vancouver District
Ross, Jamie – Belcarra
Ruimy, Dan – Maple Ridge
Wallace, Rosemary – Langley City

METRO VANCOUVER REGIONAL DISTRICT
CLIMATE ACTION COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Climate Action Committee held at 10:02 am on Thursday, April 4, 2024 in the 28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Lisa Dominato, Vancouver
Vice Chair, Director Patrick Johnstone, New Westminster* (arrived at 10:08 am)
Councillor Tim Baillie, Langley Township
Director Ken Berry, Lions Bay* (arrived at 10:06 am)
Director Mike Bose, Surrey
Director Adriane Carr, Vancouver
Councillor Alison Gu, Burnaby (arrived at 10:05 am)
Director Meghan Lahti, Port Moody* (arrived at 10:03 am)
Councillor Dennis Marsden, Coquitlam
Director Jen McCutcheon, Electoral Area A* (arrived at 10:04 am)
Director Bill McNulty, Richmond
Councillor Catherine Pope, North Vancouver District
Director Jamie Ross, Belcarra* (arrived at 10:10 am)
Director Dan Ruimy, Maple Ridge* (arrived at 10:06 am)
Councillor Rosemary Wallace, Langley City

STAFF PRESENT:
Jerry W. Dobrovolny, Chief Administrative Officer
Conor Reynolds, Director, Air Quality and Climate Action Services
Catherine Grosson, Legislative Services Coordinator, Board and Information Services
Lucy Duso, Division Manager, Collaboration and Engagement, External Relations
Rita Farkas, Senior Engagement Specialist, Collaboration and Engagement, External Relations
Heather McNell, Deputy Chief Administrative Officer, Policy and Planning
Edward Nichol, Regional Planner II, Regional Land Use Policy and Planning, Regional Planning and Housing Services

OTHERS PRESENT:
Silja Hund, Hydrologist and Risk Analyst, Ebbwater Consulting
Emily Peterson, Environmental Health Scientist, Vancouver Coastal Health
Jason Tockman, Senior Policy Lead, Vancouver Coastal Health
Yinlue Wang, Hydrotechnical Specialist, Ebbwater Consulting

*denotes electronic meeting participation as authorized by the *Procedure Bylaw*

A. ADOPTION OF THE AGENDA

1. April 4, 2024 Meeting Agenda

It was MOVED and SECONDED
That the Climate Action Committee:

a) amend the agenda for its meeting scheduled for April 4, 2024 by adding late delegation Mariko Michasiw, Zero Emissions Innovation Centre as Item C2; and
b) adopt the agenda as amended.

CARRIED

B. ADOPTION OF THE MINUTES

1. February 8, 2024 Meeting Minutes

It was MOVED and SECONDED
That the Climate Action Committee adopt the minutes of its meeting held February 8, 2024 as circulated.

CARRIED

10:03 am Director Lahti arrived at the meeting.
10:04 am Director McCutcheon arrived at the meeting.

C. DELEGATIONS

1. Joanne McBrinn, Fraser River Community Alliance

10:05 am Councillor Gu arrived at the meeting.
10:08 am Vice Chair Johnstone arrived at the meeting.
10:06 am Directors Ruimy and Berry arrived at the meeting.
10:10 am Director Ross arrived at the meeting.

Joanne McBrinn, Fraser River Community Alliance, provided members with a presentation titled "Proposed Site 2 for IWWTP Barge Delivery Less Than 180 Meters from Homes, Park and Greenway" which outlined concerns regarding the potential health and air quality impacts of the proposed Site 2 for the Iona Wastewater Treatment Plant barge berth.

Joanne McBrinn requested that Metro Vancouver choose the site that is safest for people and the environment, ensures river traffic safety, is the furthest away from residential communities, and that recognizes the land use and environmental guidelines of magnitude, frequency, endurance, and resilience.

Jerry W. Dobrovolny, Chief Administrative Officer, informed members that Metro Vancouver has completed a public consultation process and is currently working on gathering feedback from xʷməθkʷəy̓əm (Musqueam Indian Band) which will be incorporated into any decision-making moving forward.

Conor Reynolds, Director, Air Quality and Climate Action, informed members that Metro Vancouver Air Quality and Climate Action staff will be working closely with the Iona Wastewater Treatment Plant Project in their preparation of an air quality management plan, and assessing and comparing emissions from different options where appropriate.

2. Mariko Michasiw, B2E Program Manager, Zero Emissions Innovation Centre (ZEIC)

Mariko Michasiw, Buildings to Electrification (B2E) Program Manager, ZEIC, spoke about agenda item E4, and provided a presentation titled "Retrofit Canada Conference", which provided an overview of the panel discussions and interactive roundtables that will be available at the Conference scheduled for June 12-13, 2024 in the City of Vancouver. They also provided information about an offsite networking event hosted by ZEIC.

Members were invited to attend the Conference and provided with information on additional resources that ZEIC B2E produces.

D. INVITED PRESENTATIONS

1. Emily Peterson, Environmental Health Scientist and Jason Tockman, Senior Policy Lead, Vancouver Coastal Health

Emily Peterson, Environmental Health Scientist, and Jason Tockman, Senior Policy Lead, Vancouver Coastal Health, provided members with a presentation titled "Protecting Population Health in a Climate Emergency," which provided information on climate change as a critical public health issue that has global and local impacts. The presenters spoke about potential strategies for protecting at-risk populations, adapting to climate change, mitigating further climate change, and how various building design factors can have an impact on high indoor temperatures and air quality during an extreme heat event.

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. Appointment of Enforcement Officers and Assistant District Director
Report dated March 11, 2024 from Julie Saxton, Program Manager, Enforcement and Regulation Air Quality, Environmental Regulation and Enforcement, appointing one Metro Vancouver employee as a Board-designated assistant district director and two Metro Vancouver employees as Board-designated officers, and to rescind the appointment of one former officer.

It was MOVED and SECONDED

That the MVRD Board:

a) pursuant to the *Greater Vancouver Regional District Air Quality Management Bylaw 1082, 2008* and the *Environmental Management Act*:
    i. appoint Metro Vancouver employee Sonny Johal as assistant district director;
    ii. rescind the appointment of Scott Brown as an officer; and
    iii. appoint Metro Vancouver employees Sonia Ganjehei and Nicole MacDonald as officers; and
b) pursuant to section 28 of the *Offence Act* for the purpose of serving summons for alleged violations under the *Greater Vancouver Regional District Air Quality Management Bylaw 1082, 2008*:
    i. rescind the appointment of Scott Brown; and
    ii. appoint Metro Vancouver employees Sonia Ganjehei and Nicole MacDonald.

CARRIED

2. Regional Multi-Hazard Mapping Project

Report dated March 25, 2024 from Edward Nichol, Senior Planner, Regional Planning and Housing Services, providing the Climate Action Committee with an update on the completed Regional Multi-Hazard Mapping project.

Edward Nichol, Senior Planner, Regional Planning and Housing Services, Silja Hund, Hydrologist and Risk Analyst, Ebbwater Consulting, and Yinlue Wang, Hydrotechnical Specialist, Ebbwater Consulting, provided members with a presentation titled "Regional Multi-Hazard Mapping Project", which outlined the project's focus on highlighting hazard hotspots and how the project supports climate action policy objectives.

In response to member questions, Edward Nichol, Silja Hund, and Yinlue Wang informed members that:

- Municipal staff and other partners have been advised that the report and hazard maps in PDF and GIS format are available on Metro Vancouver's Regional Planning website;
- risk level for this project was calculated using the percentage chance that something may occur in one year, and .5% probability was the threshold; and
- hazard maps were created using existing data; new data may be generated in the future to explore other areas of concern such as coastal flooding risks where dykes are present, and wildfire risk in urban forests and peat lands.

It was MOVED and SECONDED

That the Climate Action Committee receive for information the report dated March 25, 2024, titled "Regional Multi-Hazard Mapping Project".

CARRIED

3. Best Practices in Communicating Climate

Report dated March 26, 2024 from Lucy Duso, Division Manager Collaboration and Engagement, External Relations, and Rita Farkas, Senior Engagement Specialist, External Relations, providing information to the Climate Action Committee on current best practices and considerations for climate communications.

Lucy Duso, Division Manager Collaboration and Engagement, External Relations, and Rita Farkas, Senior Engagement Specialist, External Relations, provided members with a presentation titled "Current Best Practices for Communicating Climate" which outlined various communication strategies that may be effective in helping people better understand solutions for climate issues, address doubts and concerns regarding perceived economic impacts, and gain the support necessary to implement solutions on a regional level.

Members discussed the importance of using positive messaging, helping people understand how climate change impacts them personally, engaging with youth, and focusing on providing solutions to climate issues while highlighting their potential economic benefits.

It was MOVED and SECONDED

That the Climate Action Committee receive for information the report dated March 26, 2024, titled "Best Practices in Communicating Climate".

CARRIED

4. Manager's Report

Report dated March 27, 2024 from Conor Reynolds, Director, Air Quality and Climate Action Services, providing the Climate Action Committee with an update on the Climate Action Committee 2024 Work Plan, recent BC Utilities Commission decisions; the BC Chief Medical Health Officer's Report *Climate Change and Health*; changes to electric vehicle legislation; and the Retrofit Canada Conference.

It was MOVED and SECONDED

That the Climate Action Committee receive for information the report dated March 27, 2024, titled "Manager's Report".

CARRIED

F. INFORMATION ITEMS

No items presented.

G. OTHER BUSINESS

No items presented.

H. RESOLUTION TO CLOSE MEETING

No items presented.

I. ADJOURNMENT

It was MOVED and SECONDED
That the Climate Action Committee adjourn its meeting of April 4, 2024

CARRIED
(Time: 12:02 pm)

Catherine Grosson,
Legislative Services Coordinator

Lisa Dominato,
Chair

67050812

To: Climate Action Committee

From: Marina Richter, Senior Air Quality Planner, Air Quality and Climate Action Services Laura Taylor, Senior Engagement Specialist, External Relations

Date: April 14, 2024 Meeting Date: May 9, 2024

Subject: **Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment**

RECOMMENDATION

That the MVRD Board direct staff to engage with interested audiences on options for developing a supportive framework and potential requirements to reduce health-harming air contaminant emissions from small non-road equipment, as described in the report dated April 14, 2024, titled "Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment".

EXECUTIVE SUMMARY

Small non-road equipment used in landscaping and light industrial applications, such as leaf blowers and lawn mowers, generates air contaminants that are harmful to human health and the environment. Across the region, the amount of health-harming air contaminants produced from this sector is about half as much as the nearly 1.5 million light-duty vehicles in the region. Staff have had initial conversations with industry associations, equipment manufacturers, member municipalities, and the provincial government about reducing air contaminant emissions from small non-road equipment through the transition to emission-free alternatives. By July 2023, over 1200 residents and professionals had responded to an information-gathering questionnaire from Metro Vancouver.

Electric equipment is growing in popularity, availability, and performance, and has the benefit of reducing harmful emissions and noise. A feasibility study is under way to identify types of equipment ready for the transition. Metro Vancouver's member jurisdictions have expressed interest in a regional approach based on Metro Vancouver's authority to manage air quality. Engagement with interested audiences would inform the development of a supportive framework for this transition, and would include a dialogue on a potential regulatory approach that could expedite the transition. After the engagement, staff will present a summary of feedback and recommendations for the Board's consideration and further direction.

PURPOSE

To seek Metro Vancouver Regional District (MVRD) Board direction to proceed with engagement on options for a supportive framework and a potential requirements to reduce health-harming emissions from small non-road equipment used in landscaping and light industrial applications.

BACKGROUND

For over 50 years, MVRD has had delegated authority under the *Environmental Management Act* to regulate the discharge of air contaminants in the region and protect air quality. Metro Vancouver's *Clean Air Plan* includes a strategy to reduce emissions from non-road equipment (Reference 1).

Member jurisdictions have asked Metro Vancouver to reduce the use of emission-intensive small non-road equipment in landscaping across the region (Attachments 1 and 2, Reference 2). The 2024 Work Plan for the Climate Action Committee identifies a priority to initiate engagement on an emission regulation for small non-road engines.

This report presents options for ways to enhance the transition to emission-free equipment and an engagement approach to obtain input from interested audiences.

HEALTH AND ENVIRONMENTAL IMPACTS

Each year, an estimated 400,000 to 600,000 units of small non-road equipment used in landscaping and light industry generate about half as much health-harming air contaminants as the nearly 1.5 million light-duty vehicles in the region. Much of the equipment uses emission-intensive, two-stroke engines. Emissions of concern include carbon monoxide, nitrogen oxides, fine particulate matter, and volatile organic compounds, all of which can harm human health, especially for vulnerable groups such as children, pregnant people, elderly people, and those with respiratory conditions. Equipment operators face additional risks due to close proximity to concentrated emissions.

The most common types of equipment are lawn mowers, hedge and line trimmers, leaf blowers, chain saws, and pressure washers, which account for nearly all regional air contaminants from small non-road equipment. 80% of this equipment is for personal use, and 20% is for professional use in commercial landscaping and parks. However, professional equipment is used more often. As a result, personal use and professional operations contribute almost equally to the overall emissions.

TRANSITION TO EMISSION-FREE EQUIPMENT

Metro Vancouver's approach to reducing emissions from small non-road equipment builds on the *Clean Air Plan* Strategy 3.2 "Reduce Non-Road Emissions and Support Early Adoption of Zero Emission Non-Road Equipment". Replacing emission-intensive small non-road equipment with electric alternatives can reduce health-harming air contaminants from being emitted close to where people live and work. Modern electric equipment also has additional benefits, such as avoided greenhouse gas emissions and noise reduction.

Readiness for transition

In 2022-2023, Metro Vancouver collected feedback on the adoption of emission-free equipment across the region from over 1200 personal and professional operators. A technology feasibility assessment conducted in 2023-2024 provides additional insights into technological development and market trends. Metro Vancouver has organized and participated in public events showcasing modern, battery-powered electric small non-road equipment. Metro Vancouver also received input from its member jurisdictions, industry associations, equipment manufacturers, provincial government, and other jurisdictions in Canada.

To summarize the feedback, residential users now have access to a broadening variety of electric tools, such as hedge trimmers, line trimmers, lawn mowers, and handheld leaf blowers, at price ranges comparable to emission-intensive equipment and with performance levels sufficient for personal use. However, uncertainties still exist for the professional range of equipment, including

lack of equivalent electric alternatives for highest-performance tools (e.g., backpack leaf blowers and large chainsaws), high capital costs of fleet transition, demand for charging infrastructure, and maintenance needs.

Developing a supportive framework

Metro Vancouver staff are taking steps to improve preparedness for the transition to emission-free equipment. Staff propose the following additional actions:

- ***To support affordability:*** Metro Vancouver would continue advocating to the provincial government for financial incentives and rebates for personal and professional users. Metro Vancouver would promote best practices, such as professional associations offering financial incentives to members and the establishment of tool lending libraries.
- ***To study feasibility and remove barriers:*** Metro Vancouver would continue to study the feasibility of transitioning to emission-free equipment, and would share findings about effective battery charging strategies and performance of professional-grade tools. Metro Vancouver would also work with associations and academic institutions to explore training on operations and maintenance of electric equipment.
- ***To improve awareness:*** Metro Vancouver would reach out to personal and professional users to deliver information about modern emission-free equipment and, more broadly, to promote sustainable landscaping.

The case for exploring a regulatory approach

For over 50 years, Metro Vancouver has had the responsibility to manage and improve air quality in the region through regional air contaminant emission regulations, site-specific permits, and support programs. A regional air contaminant emission regulation to reduce the use of emission-intensive small non-road engines, paired with a supportive framework, would help to:

- prevent emissions from extra years in service, especially due to a longer equipment lifespan for personal use;
- increase emission-free equipment availability, as manufacturers and vendors respond to the market requirements; and
- accelerate development of support systems for the transition to emission-free equipment.

Some jurisdictions in North America, such as California and New York, have adopted regulations at the state level that will ban emission-intensive small non-road equipment at the point of sale, starting in 2024 and 2025, respectively. In May 2023, the Government of BC sought feedback on a similar proposed “point-of-sale” ban. Metro Vancouver’s delegated authority enables the regulation of air contaminant emissions from equipment at the point of use, which could accelerate the transition. Several member jurisdictions have expressed their interest in reducing the use of such emission-intensive equipment through the exercise of Metro Vancouver’s authority (Attachments 1 and 2, Reference 2). The BC Landscape and Nursery Association has also expressed support for reducing emissions and collaborating with Metro Vancouver on accelerating the transition to viable emission-free equipment cost-effectively (Attachment 3).

Staff are seeking Board direction to explore options for developing a supportive framework and a potential regulatory approach to reduce regional emissions from small non-road equipment through engagement.

Those options might include:

- phasing out types of emission-intensive equipment over time as emission-free, comparably-performing alternatives become available and as financial incentives and other measures to reduce costs become more widespread;
- consideration of needs of professional operations of various sizes, compared to personal use; and
- year-round or seasonal exemptions to address operations and types of equipment for which transition to emission-free alternatives is not yet feasible.

Input and feedback from interested audiences and additional research will enable staff to present recommendations for the Board's consideration and further direction.

ENGAGEMENT APPROACH

Engagement will aim to identify the most effective approach to lowering health-harming emissions from small non-road engines, and realizing other co-benefits such as noise reduction. Engagement will focus on those likely to comment, be impacted, or have a role in implementation of a supportive framework or potential regulation, if supported by the Board. This includes all users of small non-road engines, including landscaping and irrigation companies, golf clubs, parks boards, school boards, and sports venues. Staff will also ask for input from the public, First Nations, member jurisdictions, and the regional health agencies. A list of audiences is in Attachment 4.

This engagement builds on earlier input as described above as well as conversations in 2024 with staff from member jurisdictions, the BC Landscape and Nursery Association, and academic horticulture and landscape programs. With Board direction to engage, staff can widen outreach to build awareness of this initiative, as well as invite input on the transition to emission-free equipment and the potential for an integrated approach with supportive and regulatory components. Staff can also communicate the benefits of sustainable landscaping practices.

The opportunity to provide input will be promoted to equipment owners and operators through multiple channels such as newsletters, advertising, and social media. Staff will also work with relevant associations to connect with their members. Engagement tactics will include individual meetings, webinars, municipal advisory committee sessions, sustainable landscaping events, and an always-open feedback form. There is an opportunity to combine this engagement with outreach and engagement on other related issues (e.g., related to tree canopy, outdoor water use, and Metro Vancouver's Grow Green initiatives) as a broader approach to sustainable landscaping.

Staff will present a summary of the input, and how that input is considered in any path forward for the Board's consideration and future direction.

ALTERNATIVES

1. That the MVRD Board direct staff to engage with interested audiences on options for developing a supportive framework and potential requirements to reduce health-harming air contaminant emissions from small non-road equipment, as described in the report dated April 14, 2024, titled "Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment".

2. That the MVRD Board receive for information the report dated April 14, 2024, titled "Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment", and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Under Alternative 1, the engagement approach described in this report can be completed under the approved program budget for 2024, including staff time and consulting expenditures. Staff will present the financial implications of any staff recommendations informed by the input from engagement when presenting future recommendations to the Board for consideration.

CONCLUSION

Small non-road equipment powered by emission-intensive engines generates significant air contaminant emissions that can harm human health and the environment. Transition to emission-free equipment across the region can help reduce those emissions. This report presents options to accelerate this transition by building a supportive framework, including incentives and rebates, infrastructure development, and improved awareness, and potentially using Metro Vancouver's air quality authority to regulate the discharge of air contaminants. Development of a potential emissions-reduction approach will be informed by feasibility research and feedback received from interested groups during the public engagement. After the engagement, staff will present a summary of feedback and recommendations for the Board's consideration and further direction.

ATTACHMENTS

1. Letter of Support from the District of West Vancouver re: Small Non-Road Engine Management
2. Letter of Support from the City of Vancouver re: Metro Vancouver's Consideration of Regulations for Small Non-Road Engines
3. Letter of Support from the BC Landscape & Nursery Association re: Small Non-Road Engines Emissions Reduction Engagement
4. Engagement Approach: "Proposed Engagement Approach to Reduce Emissions from Small Non-Road Equipment"
5. Presentation re: Reducing Emissions from Small Non-Road Equipment

REFERENCES

1. Metro Vancouver's *Clean Air Plan*
2. 6.1 Correspondence from the City of Burnaby re: Gas to Electric Powered Equipment, Climate Action Committee Meeting - October 15, 2021

66869349

OFFICE OF THE MUNICIPAL MANAGER
750 17th Street, West Vancouver, BC V7V 3T3
t: 604-925-7002

April 17, 2024

Jerry Dobrovolny, Commissioner/Chief Administrative Officer
Metro Vancouver Regional District
Metrotower III, 4730 Kingsway
Burnaby, B.C. V5H OC6

Dear: Mr. Dobrovolny,

RE: Small Non-Road Engine Management

On behalf of District staff and in support of Council's Strategic Plan, I am writing to you to advocate our support for Metro Vancouver to develop emission reduction measures from small non-road engine equipment, including gas-powered landscaping equipment as well as support tools for the transition from gas to electric powered small engine equipment.

In recent years, residents of West Vancouver have expressed concerns regarding the noise and air pollution from gas-powered landscaping equipment. In response to these concerns, Council have directed staff to investigate options and measures to ban these types of equipment and look at alternatives both for residents and municipal operations to address issues related to noise, air pollution, and greenhouse gas (GHG) emissions. This direction was added to Council's 2024/25 Strategic Plan as follows:

Objective 6.9: Address the health impacts of noise and/or air pollution on livability for residents.

- *Deliverable 6.9.1: Develop a plan on a phased approach to banning DWV gas-powered leaf blowers that considers both the financial costs and environmental benefits. Additional resources required.*
- *Deliverable 6.9.2: Explore measures to limit gas powered gardening equipment for community members.*

Within municipal operations, staff continue to support the transition to electric outdoor tools as market availability advances and gas-powered equipment reaches the end of their useful life. However, staff have not begun to address the direction to determine measures to limit the use of gas-powered landscaping equipment by residents and landscaping companies in the community. Although the District can manage noise levels from landscaping equipment under the Noise Bylaw, it does not have a broader scope of authority to regulate emissions from all types of small non-road engines. Metro Vancouver has the delegated authority to regulate discharge of air contaminants in the

region and is in the best position to develop regulations to reduce emissions from small non-road engines, inclusive of landscaping equipment, at a regional scale.

The benefit of a regional approach is that it targets all emission sources from small non-road engines, reaches a broad industry and market that spans the entire region, and provides a broader engagement potential to ensure all stakeholders are included. With the benefits of a regional, collaborative approach between Metro Vancouver and its municipalities, there are far greater opportunities for efficiency and efficacy versus the model where each municipality independently develops regulatory requirements to phase out gas-powered equipment under a narrower scope of authority for local governments. In addition, the consistent regional regulations, direction, and messaging with support from both Metro Vancouver and municipal staff, will help stakeholders better prepare and navigate new requirements.

The District of West Vancouver looks forward to collaborating with Metro Vancouver and other municipalities and in developing a region-wide regulatory approach to address those emissions from small non-road engine equipment.

Sincerely,

Scott Findlay
Municipal Manager

CITY OF VANCOUVER

PLANNING, URBAN DESIGN & SUSTAINABILITY
General Manager's Office

April 25, 2024

Heather McNell
Deputy Chief Administrative Officer, Policy and Planning
Heather.McNell@metrovancouver.org

RE: Metro Vancouver's Consideration of Regulations for Small Non-Road Engines

Dear Heather,

I'm writing to communicate the City of Vancouver's support for Metro Vancouver's work to explore a regional regulatory approach to reduce emissions from small non-road internal combustion engines. These engines generate health-harming contaminants and contribute to climate change.

Metro's efforts are aligned with Vancouver City Council direction. For example, in 2022 Council directed staff to develop recommendations to phase out personal and commercial use of gasoline-powered landscape maintenance equipment, giving consideration to a timeframe that is workable for residents and landscape maintenance service providers. In 2021, Council directed staff to encourage Metro Vancouver to develop stringent emission regulations for landscaping equipment.

In May 2023, the City engaged with the public to hear feedback on noise-related concerns and perceptions of current regulations through an online survey. Many respondents to the survey commented on the noise from landscaping equipment, and gas-powered leaf blowers specifically, calling for a ban on this type of equipment.

A Metro Vancouver led approach to small non-road engines offers two notable benefits:

- Metro Vancouver has clear delegated authority to regulate the discharge of air contaminants from small non-road engines.
- A region-wide approach works with a much larger market than any individual local government, which leads to bigger benefits and can set a level playing fields for businesses across the region.

As you undertake your technical analysis and engagement, we expect you will find that the market readiness varies depending on the sub-sector. For example, the Vancouver Park Board has successfully converted about 35% of its landscaping equipment to electric options, while also encountering challenges with some electric equipment. Challenges have included limited battery-charge life, limitations with charging infrastructure, ergonomic issues, limits with power and torque levels, and delays in procuring equipment. We encourage you to develop a robust understanding of this variability so that any regulatory proposals can be appropriately tailored to market conditions.

Thank you for advancing this important work. We welcome opportunities to be involved in your process.

Sincerely,

Doug Smith
Acting General Manager, Planning, Urban Design & Sustainability
doug.smith@vancouver.ca | 604.829.4308

April 16, 2024

Sent via email: Jerry.Dobrovolny@metrovancouver.org, AQInfo@metrovancouver.org

Jerry W. Dobrovolny,
Commissioner/Chief Administrative Officer
Metro Vancouver

Re: Small Non-Road Engines Emissions Reduction Engagement

Good Day Mr. Dobrovolny,

The BC Landscape & Nursery Association (BCLNA) represents over 4800 landscaping service establishments in British Columbia. These companies comprise over 20% of landscaping companies in Canda and generate annual revenues of over $3.6 billion while providing wages for over 10,000 employees. Our Association is supportive of the intent to reduce greenhouse gases and to assist the industry in transitioning to alternate equipment with approaches that ensure companies remain viable and competitive while improving environmental performance.

BCLNA has participated in the Metro Vancouver led study "Transition to Zero-Emission for Small Non-Road Engines: Evaluation of Emission reduction Impact and Preparedness for Electrification" and has invited Metro Vancouver staff to connect with our Landscape Advisory Group and participate in a Landscape Commodity meeting. BCLNA supports the continued dialogue and engagement with Metro Vancouver on this issue to work through the challenges and identify opportunities to support the acceleration of the transition to electric equipment. Some of those challenges include:

- Supply of electric equipment
- Efficiency of electric equipment – especially in cold weather
- Charging capacity of electric equipment
- High cost of electric equipment – (3 to 4 times more costly than gas-powered equipment)
- Safety concerns of some electric equipment and further training needed for staff
- Disposal of or retrofitting current gas powered equipment and batteries

BCLNA encourages a collaboration with Metro Vancouver and others to provide incentives and BCLNA offers to a transition program for Landscapers in Metro Vancouver and potentially throughout the Province.

Sincerely,

Coreen RB

Coreen Rodger Berrisford
Chief Operating Officer
BC Landscape & Nursery Association

2650 Progressive Way #1, Abbotsford BC V2T 6H9
E. info@bclna.com | **T.** 604.575-3500 | | www.bclna.com

Reducing Regional Air Contaminant Emissions from Small Non-Road Equipment

Engagement Plan Summary

May, 2024

Overview

Metro Vancouver is committed to engaging with other governments, including member jurisdictions and First Nations, industry, and the public to identify an effective approach for lowering emissions from small non-road engines. Discussions will include the feasibility of a supportive framework and a regulation that limits the use of emission-intensive landscaping and light industrial equipment to lower the amount of health-harming air contaminants. The long term, regional goal is to transition to emission-free equipment, and Metro Vancouver will explore how it can support this transition. A potential regulation supports the emission reduction targets set in Metro Vancouver's *Clean Air Plan* (2021), and will protect human and environmental health.

The various approach options, including a potential regulation, will aim to limit the use of emission-intensive equipment such as lawnmowers, chainsaws, and leaf blowers with two-stroke engines. It will encompass both personal and professional use. Air quality impacts from health-harming air contaminants from emission-intensive equipment — such as fine particulate matter, carbon dioxide, methane, and nitrogen oxides — have significant health costs and particularly impact children, the elderly, and residents with underlying health conditions.

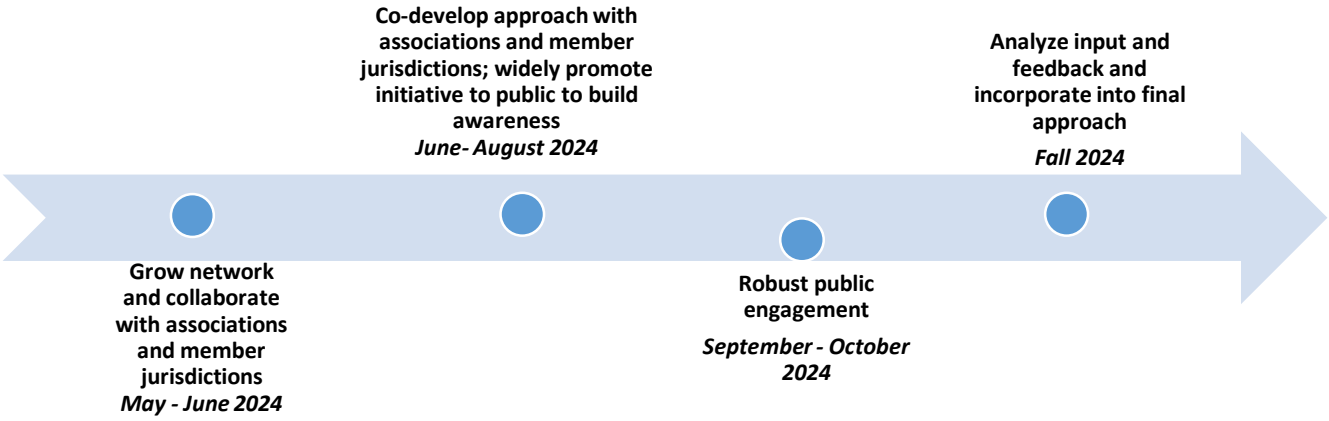
This engagement plan is designed to hear input from, and collaboratively develop an approach with, those likely to comment, be impacted, or have a role in implementation. This includes all users of small, non-road engines — including landscaping associations, irrigation companies, golf clubs, member parks departments, school boards, and sports venues. Staff will also ask for input from the public, First Nations, member jurisdictions, and the regional health agencies. The five-month engagement period accommodates building a network, communicating the need for a regional approach to reducing emissions from this type of engine as well as the co-benefits (clean air, noise reduction), collaboratively identifying a feasible approach, engaging on identified approach with the general public, and analysing feedback.

An engagement summary report issued at the end of engagement will reflect how input received has informed the proposed approach.

Engagement Objectives

1. Reach an audience that includes: other governments including member jurisdictions and First Nations, industry and other interest holders, and the public.
2. Gain insight and feedback about barriers and opportunities for a supportive framework and a potential regulation.
3. Support informed, dialogue-based engagement and use engagement outcomes to inform the proposed approach.
4. Raise awareness about Metro Vancouver's role in managing air quality in the regional air shed and protecting health and the environment, as well as the commitment to reaching ambitious emission reduction targets.

Engagement timeline



Staff plan to build momentum for this collaborative initiative by growing the network of collaborators including landscaping associations, golf courses, academia, member jurisdictions, and First Nations, to communicate the goals of the project and the need to co-develop an effective approach. Staff will work closely with this developed network to identify a feasible approach, along with opportunities and barriers to electrifying small, non-road engines. Concurrently, staff will widely promote the project through advertising and relevant tradeshows, and build on this early awareness to conduct robust public engagement on a refined approach in the fall of 2024, including an online questionnaire, webinars, and open house.

Engagement Approach

Metro Vancouver is seeking input on:

- Barriers to adoption of emission-free landscaping equipment, both for personal and professional use
- Opportunities to provide incentives or facilitate the transition to emission-free equipment
- Educational programs and parallel initiatives with aligned objectives
- Practicality of a phased-in timeline and seasonal requirements
- Health impacts from small non-road engine use
- Feasibility of promoting compliance with a potential regulation
- Unintended/unforeseen consequences of regulating this equipment

Audience and Anticipated Issues/Opportunities

Audience categories (with examples)	Anticipated Issues/Opportunities
Other governments: • Member jurisdictions • Provincial agencies • Federal agencies • Neighbouring regional districts	• Aware of the purpose and benefits of regional approach • Express support, concerns or impacts such as: o Support or concern for a regulation in general o Support or concern for specific requirements • Identify aligned initiatives • Provide input on further alignment, implementation or collaboration • Any other feedback will be considered

First Nations with interests in the region	• Aware of the purpose and benefits of identifying regional approach
	• Raise awareness of potential regulation and hold meetings to discuss potential interests such as:
	  o parallel initiatives
	  o sharing best practices
	• Any other feedback will be considered

Industry and interest holders' database. This list includes categories and examples from Metro Vancouver's small non-road equipment user database:
• Agencies/ organizations with a role in implementation:
  o Member jurisdictions
  ▪ Park departments, community centres
  o BC Housing
  o Regional Schoolboards
  o Sports venues
• Industry and business associations:
  o Strata Property Agents of BC
  o BC Landscape & Nursery Association
  o BC Golf Superintendents Association
  o Irrigation Industry Association of BC
• Vancouver Coastal, Fraser and First Nations health authorities and other health partners
• Municipal advisory committees
  o Municipal agricultural advisory committees
  o Municipal environmental advisory committees
• Individuals with expertise and influence
  o In-region academics
  ▪ For example, KPU and UBC Landscape Horticulture Systems programs
	• Aware of the purpose and benefits of identifying regional approach
	• Identify how Metro Vancouver can support a transition to emission-free equipment
	• Express support, concerns, or impacts such as:
	  o Support or concern for a potential regulation, and transition to emission-free equipment in general
	  o Support or concern for identified requirements (e.g., cost, feasibility, timeline, and expectations)
	  o Comments on alignment or misalignment with other initiatives
	• Input on implementation, collaboration or innovation
	• Any other feedback will be considered

Public:
• Existing database of residents interested in air quality activities
• Representation for those impacted by emissions, particularly people with pulmonary health concerns
• Homeowners who use relevant equipment
• Any resident who is interested in providing comments
	• Aware of the purpose and benefits of identifying regional approach
	• Express support, concerns, or impacts such as:
	  o Support or concern for a potential regulation, for example:
	  ▪ cost, feasibility, alternate options, barriers, implementation etc.
	• Any other feedback will be considered

Audiences with a focus on equity, resilience, and prosperity	• Aware of the purpose and benefits of reduction of emissions from relevant equipment • Express support, concerns or impacts • Comments related to health equity and impact • Any other feedback will be considered

Engagement Activities

Metro Vancouver's communications and engagement activities are provided below.

Tactic	Timing (2024)

Inform audiences that Metro Vancouver is looking at options to reduce emissions from landscaping and light industrial equipment engines, including a supportive framework and a potential regulation, purpose and benefits, and options for providing input.
• Publish a web resource to house:
  o Information package on emissions from small non-road engines
  ▪ Need for aligned regional approach, scope of issue and potential approaches, and benefits
  o Options for providing comment
• Mail out to existing database
• Share information to municipalities for further disbursement to relevant departments
• Correspondence to project database to include:
  o Link to web resource
  o Invitation to join a public or sector specific virtual forum
  o Invitation for a meeting with staff
  o Request and options for providing input
  o Specific mail out to landscape industry audience based on previous engagement
• Promote information to broader audience via:
  o Social media
  o Newsletters
  o Request member outreach to residents
  o Paid advertising (radio, community papers)
  o Landscaping events such as: home and garden shows, landscaping conferences
	June - October

Inform First Nations of regulation development and offer staff-to-staff meetings • Initial correspondence to each affected First Nation based on previously stated preference (email, online portal etc.) • Set up direct staff-to-staff meetings based on interest in emissions source or potential regulation	June - October

Answer questions and clarify information
• Host webinars to introduce the issue, propose approach options, and answer questions
  o public (2 webinar times)
  o industry focused (2 webinar times)
  o other governments and agencies (2 webinar times)
• Meetings with:
  o other governments
  o specific sectors and organizations
  o other relevant audiences
• Respond to email queries to project email and moderate social media
	June - October
	
	Respond to queries and moderate social media – ongoing

Online questionnaire • Promoted during the public engagement period and at webinars	September - October
Ensure target audience is aware, and has an opportunity to speak with staff and provide feedback • Narrow a prioritized audience to ensure a mix of voices in the feedback – reach out directly to individuals to solicit feedback. (e.g., health authorities, landscape associations)	June - October
Compile input • Collect and review input • Create a table that can be filtered for theme and audience	October - November
Analyze/ incorporate feedback into proposed approach	November - December
Final regulation/alternate approach submitted for adoption to MVRD Board • Include summary of engagement and input and how input was applied	TBD

Communication Tools

The initial communication tools are listed below and will be updated as the project progresses.

Type	Tactic	Date
Foundational/ supporting Materials	Key Messages and FAQ	May 2024
	Webpage	June 2024
	Information package	June 2024
	Presentation deck for webinar and meeting	June 2024
	Manage and update interest holder database	May - October 2024
Correspondence	Send initial correspondence to interest holders	May - June 2024
	Relevant association correspondence (email, newsletter ads, and meeting attendance)	Ongoing

Reducing Emissions from Small Non-Road Equipment

Marina Richter
Senior Air Quality Planner, Air Quality and Climate Action Services

Laura Taylor
Senior Engagement Specialist, External Relations

Climate Action Committee, May 9, 2024
67555872

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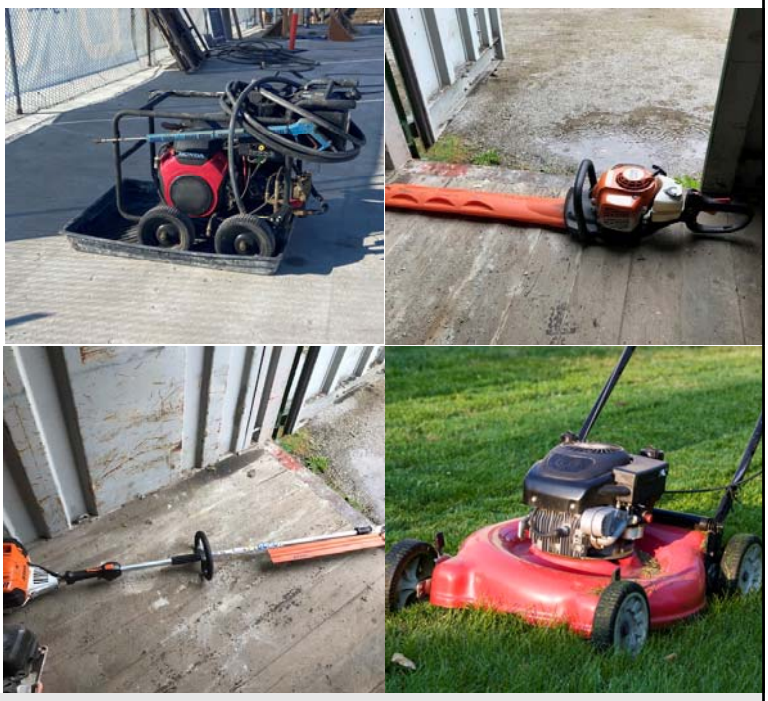
SMALL NON-ROAD EQUIPMENT



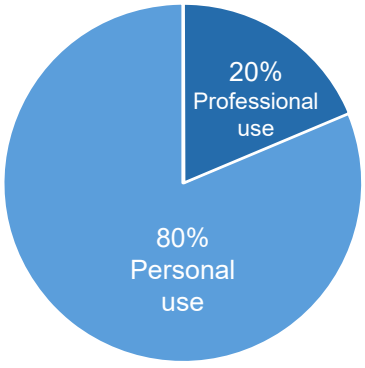
MVRD ROLE IN REGIONAL AIR QUALITY

- Delegated authority under *BC Environmental Management Act*
- *"MVRD Non-Road Diesel Engine Emission Regulation" since 2012*
- *Clean Air Plan:* to further reduce non-road emissions
- CAC 2024 work plan: engagement on reducing small non-road emissions

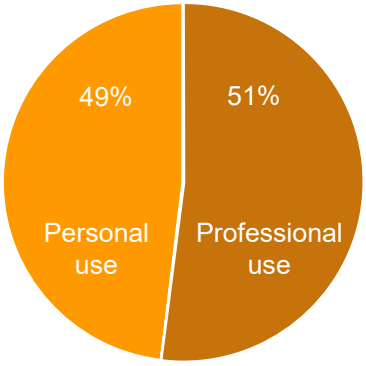
SMALL NON-ROAD EQUIPMENT USE AND EMISSIONS

Estimated 400-600K equipment units in Metro Vancouver

Equipment Ownership



Health-harming Air Contaminants from Small Non-Road Equipment



METRO VANCOUVER INITIATIVES

- Conversations with member jurisdictions and professionals
- 'Go Electric Parks!' event (May 2023)
- Questionnaire for equipment users (Fall 2022 – Summer 2023)
- "Revving up the Shift 2 Zero Emission Engines" (2024 – 2026)

OTHER JURISDICTIONS

USA

- California: SORE Regulation, 2024
- New York State: Gas Lawn Equipment Ban, 2025
- Other US States and Cities

Canada

- BC: Consultation Paper, May 2023
- Local governments:
  - Corporate fleet electrification plans
  - Procurement of contracted services
  - Public policy development

SHAPING A SUPPORTIVE FRAMEWORK

- Education and outreach
- Provincial incentives
- Infrastructure development
- Professional associations
- Community resources

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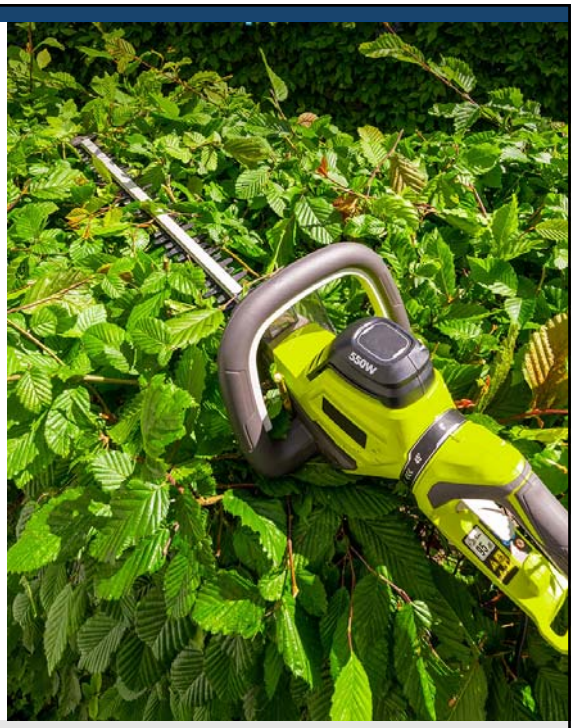
EXPLORING POTENTIAL REQUIREMENTS

- Phasing-out types of equipment based on their preparedness for transition
- Transition strategies for professional fleets
- Exemptions for equipment with no alternatives



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PROPOSED ENGAGEMENT APPROACH

June – October 2024

- Continue to build a collaborative network of equipment users
- Work with network to develop a draft strategy to transition to emission-free equipment
- Take draft strategy to a wider audience for input
- Raise awareness of Metro Vancouver's role in air quality and climate action

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To: Climate Action Committee

From: Lise Townsend, Division Manager, Air Quality and Climate Action Policy, Air Quality and Climate Action Services

Date: April 15, 2024 Meeting Date: May 9, 2024

Subject: **BC Utilities Commission Decisions and Local Government Interests in the Energy Transition**

RECOMMENDATION

That the MVRD Board:

a) Receive for information the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition"; and

b) Direct staff to forward a copy of the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition" to the Mayors and Council Members of each Metro Vancouver member jurisdiction.

EXECUTIVE SUMMARY

Decisions recently issued by the BC Utilities Commission (BCUC) for three proceedings in which Metro Vancouver participated were generally aligned with the positions taken by the Local Government Interveners. Metro Vancouver, together with several other local governments, participated as an Intervener in three BCUC proceedings: (1) FortisBC's long-term resource plan; (2) BC Hydro's long-term resource plan; and (3) FortisBC's renewable natural gas (RNG) program. In these proceedings, the Local Government Interveners (LGI) advocated for fairness in energy rates and coordinated long-term planning. Both the utilities' long-term plans were accepted, but the BCUC did not resolve the need for coordinated energy planning between BC Hydro and FortisBC. The BC Government has communicated, in responses to letters from the MVRD Board, that a forthcoming Climate Aligned Energy Framework for BC is expected to address this concern. In the RNG proceeding, the BCUC denied a RNG Connections Service for new construction due to an unfair rate subsidized by existing ratepayers.

Metro Vancouver's participation in this proceeding highlighted the value of local government input to provincial energy planning. Staff will continue to seek opportunities for provincial input and advocacy to encourage alignment with regional policies.

PURPOSE

To inform the MVRD Board of the outcomes of three BC Utilities Commission Proceedings that Metro Vancouver participated in as an Intervener, and potential implications for local government policy goals and interests in the energy transition.

BACKGROUND

With approval of the MVRD Board, Metro Vancouver collaborated with several municipalities from Metro Vancouver and the Capital Regional District to participate as an intervener in three BC Utilities Commission (BCUC) proceedings.

- *FortisBC Energy Inc.* ("FortisBC") *2022 Long-Term Gas Resource Plan* ("LTGRP") (Reference 1);
- *British Columbia Hydro and Power Authority* ("BC Hydro") *2021 Integrated Resource Plan* ("IRP") (Reference 2); and
- *FortisBC Energy Inc. Biomethane Energy Recovery Charge Rate Methodology and Comprehensive Review of a Revised Renewable Gas Program* ("RNG Rate Case") (Reference 3).

In March 2024, the BCUC issued decisions for the above-noted proceedings. As directed by the Board, the purpose of this report is to summarize these decisions and provide high-level analysis of their implications for Metro Vancouver and related local government policy interests in the energy transition.

Metro Vancouver's board-endorsed *Climate 2050 Energy Roadmap* includes targets and key strategies to plan for the region's transition to clean, renewable, and resilient energy. Actions include working with member jurisdictions to provide input to relevant utility and regulatory processes, and advocating to the provincial government, the BCUC, and utilities for coordinated long-term planning for the energy transition.

OVERVIEW: BCUC AND INTERVENERS

Role of BCUC

The British Columbia Utilities Commission (BCUC), governed primarily by the *Utilities Commission Act*, is an independent agency of the Government of BC (the Province), charged with regulating BC's energy utilities, automobile insurance rates, common carrier pipelines, and the reliability of the electrical transmission grid. The BCUC's stated mandate is to ensure that customers have access to safe, reliable energy service rates, while allowing utilities the opportunity to earn a fair return on their investments. The Province, in addition to enacting enabling legislation governing the BCUC's mandate, can provide direction to the BCUC through an Order in Council.

The BCUC reviews applications from regulated entities through open, transparent, public proceedings, which include opportunities for the public to participate and provide feedback. Only registered interveners can file evidence, ask questions of other participants, and file final arguments in a proceeding, however other interested parties can submit letters of comment.

In October, 2023, a new Chair was appointed for the BCUC, and the Province issued a letter to the Chair emphasizing a need to prioritize GHG emissions reduction in the clean energy transition (Reference 4).

Local Government Interveners

In all three proceedings described in this report, Metro Vancouver collaborated with several other local governments. This enabled information sharing and more efficient use of resources among the parties, including procuring the services of experts. The Local Government Interveners (LGI) consisted of the following for all three proceedings: Metro Vancouver Regional District, District of North Vancouver, City of Vancouver, City of Richmond and Lulu Island Energy Company, and the District of Saanich. In addition, the City of Victoria participated in the FortisBC RNG Rates Case proceeding.

BCUC PROCEEDINGS – SUMMARY AND DECISIONS

FortisBC Long-Term Gas Resource Plan

FortisBC's Long-Term Gas Resource Plan (LTGRP) represents the utility's broad plan for transitioning to a low-carbon energy future in response to the Province's CleanBC Plan and CleanBC Roadmap to 2030. The LTGRP sets out how FortisBC expects to shift from distributing fossil natural gas to distributing various forms of renewable and low-carbon gases.

The Local Government Interveners (LGI) did not submit evidence in this proceeding, but individual members submitted information requests and the group jointly submitted a final argument.
In their final argument, the LGI expressed concern that, given the lack of clarity about how the energy transition will unfold in BC, the LTGRP is narrowly focused on renewable gases, with uncertainties regarding their performance, pricing, and availability in BC. They advocated for further study to address RNG and hydrogen availability, proper accounting of the environmental benefits of RNG procured from outside the province, and how hydrogen will be deployed in FortisBC's system. The LGI stressed the importance of coordinated planning for the energy transition in BC that integrates both gas and electrical utilities' long-term plans and considers a wider array of decarbonization pathways. Recognizing the need for FortisBC to progress towards solutions, the LGI did not recommend whether the BCUC accept or reject the LTGRP; rather, they emphasized the limited contextual value of the LTGRP to inform future applications, and asked that BCUC direct FortisBC to urgently address the gaps revealed through the proceeding.

The LGI did not directly comment on the two components of the LTGRP that were rejected by the BCUC, as noted below.

The BCUC's decision included the following findings:

- The BCUC broadly accepted the LTGRP, finding that the public interest would be best served to allow FortisBC to advance its planning.
- The BCUC rejected planned investments in liquefied natural gas (LNG) for marine fueling (bunkering) and global markets due to insufficient evidence of demand for the product.
- The BCUC rejected the Resiliency Plan[1] which is intended to respond to and recover from disruptions to the gas system, but noted that FortisBC has committed to providing an updated Resiliency Plan in its next LTGRP submission to the BCUC.
- FortisBC was directed to file its next LTGRP by March 31, 2026.

[1] In the FortisBC Tilbury LNG Storage Expansion Project proceeding (BCUC Decision and Order G-62-23), the BCUC identified a number of shortcomings with the Resiliency Plan. This BCUC panel agreed with those shortcomings.

As discussed in the following section of this report, the BCUC agreed with the LGI and other interveners that collaboration between the major utilities would be beneficial, but did not take any action beyond encouraging such an approach.

Noteworthy BCUC Comments: Notwithstanding the overall acceptance of the LTGRP, the BCUC noted many uncertainties that it directed FortisBC to address in its next LTGRP. In particular, the BCUC emphasized the need for more sophisticated modeling of demand changes due to the energy transition, including scenarios that contemplate "demand destruction" (reduced gas throughput) and more details about planned actions to reduce GHG emissions.

BC Hydro Integrated Resource Plan

BC Hydro's Integrated Resource Plan (IRP) is a 20-year plan for the electrical system. It includes a Base Resource Plan and several Contingency Resource Plans that forecast anticipated demand and how that would be met with existing and new supply and capacity under various scenarios. BC Hydro's initial 2021 IRP application was significantly modified with a "Signpost Update" filed by the utility in spring 2023. This signaled a major shift in planning, from decades of flat energy demand to rapidly rising projected demand in response to population growth, market trends and multi-level government policy driving increased electrification. This was the stage at which Metro Vancouver registered as an intervener.

The Local Government Interveners (LGI) did not submit information requests or evidence in this proceeding, but submitted a final argument in which they cited evidence filed by other interveners.

In their argument the LGI stated that, while they generally support the IRP given the increasingly critical role of electricity in the energy transition, there is an urgent need for coordination in long-term resource planning between BC Hydro and FortisBC, pointing to the fact that each long-term resource plan envisions a different energy future. They also recommended more detailed regional scale distribution system analysis and planning, to ensure that sufficient electricity is provided in a timely manner to meet expected growth and climate targets.

The BCUC's decision included the following findings:

- On the whole, the IRP, inclusive of the Signpost Update, was accepted and determined to be in the public interest.
- The need for BC Hydro to acquire an additional 3,700 GWh of clean or renewable energy, as announced by the Province while the IRP was in process, was "conclusively determined", meaning it is not subject to need for further review.
- BC Hydro was directed to submit its next IRP by October 31, 2025.

As discussed in the following section of this report, the BCUC agreed with the LGI and other interveners that collaboration between the major utilities would be beneficial, but did not take any action beyond encouraging such an approach.

Noteworthy BCUC Comments: In response to rapidly shifting policies, technology, and external factors, the BCUC directed BC Hydro to submit IRPs more frequently and clarify uncertainties. This includes more detailed analysis of potential resource options to better inform the market. Agreeing

with FortisBC, the BCUC directed BC Hydro to further analyze the impact of electrification on their load forecast, including at the regional scale. BC Hydro should also undertake regional load forecasts and planning for non-bulk transmission and distribution infrastructure. Regional demand-side measures and resources should also be included in the next IRP, to reduce the need for investments, and BC Hydro should consider further resource diversification and energy storage to mitigate variability in hydro-electric supply due to climate impacts.

FortisBC RNG Rates Case

On December 17, 2021, FortisBC applied to the Commission for approval of a Revised Renewable Gas Program[2]. The program consisted of three primary elements, of which the third was the focus of the LGI input.

1. Voluntary RNG Service, providing an option for customers to purchase RNG at a subsidized price relative to the conventional gas service and programmatic changes[3].
2. RNG Blend Service, in which all sales customers will receive and pay for a blend of RNG as part of their regular gas service, designed to comply with FortisBC's obligations under the Greenhouse Gas Reduction Regulation.
3. RNG Connection Service, in which 100 per cent notional RNG would be provided to all customers as a mandatory service in newly constructed residential buildings, with rolled-in pricing, meaning that RNG Connections service customers would pay the same price as existing customers receiving a lower blend of RNG.

The Voluntary RNG Service and RNG Blend Service are conventional rate products, following established practices for introducing higher-cost energy into a utility's supply mix system for policy reasons. As such, the LGI did not submit comments concerning these aspects of the proceeding. In response to the RNG Connection Service component of the FortisBC submission, the LGI participated in this proceeding by submitting and responding to information requests, submitting expert evidence[4], and submitting a final argument.

In their evidence and final argument, the LGI, among other interveners, opposed the RNG Connection Service, arguing – based on established rate-making principles – that the proposed rates are unjust, unreasonable, discriminatory, and not in the public interest. Central to this argument was economic analysis commissioned by the LGI that estimated the proposed rate would impose a $750 million subsidy over eight years, paid by existing ratepayers to cover the increased cost to deliver 100% notional RNG to new customers. The LGI further asserted that FortisBC's application relied on flawed assumptions about the permanence of the rate, the availability of RNG, and that the proposed rate could undermine local government policies and lead to inefficient investments that could hinder long-term climate goals.

[2] Renewable gas was originally defined in the submission as renewable natural gas (RNG), synthesis gas, and lignin. The BCUC subsequently determined that for the purpose of this proceeding, renewable gas would only include RNG. RNG is typically more expensive to produce than conventional (fossil) natural gas, but is a lower carbon alternative.

[3] The Voluntary RNG Service included expanding the program to larger volume businesses, increasing the price of RNG for natural gas vehicle and transportation service customers, and eliminating a discount for long-term contracts.

[4] The expert evidence filed by the LGI collectively was prepared by Kurt G. Strunk, Managing Director, National Economic Research Associates, Inc. (NERA). Expert evidence was also individually filed by the following LGI members: City of Vancouver, City of Richmond, District of North Vancouver, District of Saanich, and City of Victoria.

The BCUC's decision included the following findings:

- The BCUC accepted the Voluntary RNG Service, finding that the subsidy, although in principle discriminatory, was not "unduly" so, and directed FortisBC to report by January 31, 2026 whether the rate subsidy continues to be appropriate.
- The BCUC accepted the RNG Blend Service, finding that it was reasonable in light of increased penetration of RNG into the system.
- The BCUC denied the RNG Connections Service on the basis that it is "unreasonable and unduly discriminatory." In its decision, the BCUC states:

"The incremental cost of RNG based on FEI's 2024 forecast is four times the cost of natural gas, whereas the RNG Connections service customers would receive (notionally) 100 percent RNG, which is far more than the amount existing customers, who would be paying the same price, would receive. In the Panel's view, this describes a clear case of price discrimination with RNG Connections service customers being subsidized by existing customers. The evidence in this proceeding shows that the level of subsidization from existing customers would be very significant, estimated at $750 million over the period 2024 to 2032. As such, the Panel determines the RNG Connections service, as proposed by FEI, is unreasonable and unduly discriminatory and rejects FEI's RNG Connections service."

METRO VANCOUVER AND LOCAL GOVERNMENT POLICY INTERESTS AND OPPORTUNITIES

Role of Local Governments in Energy Transition Planning

Local governments have long played an important role in provincial and regional planning for the energy transition through advocacy, policy-making, and directly through providing energy and related infrastructure. This has included advocacy and input to green building policies such as the Zero Carbon Step Code, policies to encourage low-carbon energy systems and electric vehicles, producing RNG (e.g., Surrey's biofuel facility and Metro Vancouver's wastewater treatment plants); operating district energy systems, and, in the case of Metro Vancouver, providing waste heat from the sewer system and waste-to-energy facility.

Elevating Local Government Policy Interests

These BCUC proceedings represent the first time Metro Vancouver has coordinated with other local governments to advance its interests through in-depth input to utility proceedings. In these proceedings, the LGI advocated for a fair and evidence-based approach to the energy transition that aligns local government climate commitments, and protects their policy role and regulatory authority. While recognizing a role for renewable gases, the LGI also sought to ensure that these gases are verifiably zero-emission, safely deployed, affordable, reliably available, and deployed to their highest and best use.

The influence of the LGI evidence and argument were particularly strong in the BCUC's decision for the RNG Connection Service in the RNG Rates Case. Although the decision hinged on rate-making principles, finding the proposal to be "unduly discriminatory", it also resulted in preserving local government authority regarding acceptable pathways to meet the Zero Carbon Step Code, a key municipal policy tool to ensure new construction is zero emissions and resilient to climate impacts.

In both long-term resource plans the LGI influence was more uncertain, since the plans were largely accepted by the BCUC, a direction that itself presents challenges as noted below. Yet the BCUC in its comments directed both utilities to address uncertainties and include regional considerations in their future long-term resource plans, which may present opportunities for Metro Vancouver.

Need for Coordinated and Climate-Aligned Energy Planning

In both the FortisBC LTGRP and the BC Hydro IRP proceedings, the BCUC agreed with the LGI and most other interveners on the importance of a more coordinated approach to the energy transition to protect the interest of ratepayers. However, while the BCUC "strongly encouraged" BC Hydro and FortisBC to communicate closely and adopt a common set of assumptions for the next BCUC filing, it refrained from providing specific direction regarding collaboration between or imposing agreement "upon any given view of the future" among the two utilities, which it noted would be "resource intensive", and the domain of the provincial government.

This matter was also outlined in a letter to the Province dated February 1, 2024, in which the MVRD Board requested that the Province improve coordination between FortisBC's and BC Hydro's long-term planning processes (Attachment 1). In their response, dated February 28, 2024 (Attachment 2), the Province emphasized that the pending Climate Aligned Energy Framework is anticipated to play a key role in developing "joint approaches for optimizing the combined electricity and gas infrastructure to achieve emissions reductions in the most cost-effective way". This letter built upon a prior letter that the MVRD Board sent to the Province (dated September 24, 2023), regarding the Climate Aligned Energy Framework, as well as a request to reform the BCUC to ensure GHG emission reduction from gas utilities (Attachment 3), and the Province's response (Attachment 4).

Currently, the timing, scope, and specific opportunity for local governments to be involved in the Climate Aligned Energy Framework is still unknown. In the meantime, the lack of clarity about how the energy transition will unfold creates a highly uncertain context for local government policy-making and planning for growth, amid significant and growing affordability challenges. Staff will continue to seek to provide input to the Province on this Framework and other opportunities for coordinated, publicly transparent energy planning, including a focus on regional scale opportunities aligned with *Climate 2050*, as outlined below.

Need for Regional Energy Demand Analysis and Planning

The BCUC decisions for both long-term resource plans highlighted a need for more detailed and regionally-focused analysis and planning in future plan iterations. In addition to undertaking more regional scale (bottom-up) energy demand analysis for both gas and electricity, the BCUC directed both utilities to pursue demand-side measures that could defer infrastructure investments. This could include strategic planning at the neighbourhood scale to right-size the gas and electrical grid for efficiency and GHG reduction, and deploying various combinations of low-carbon energy such as waste heat, electrification, and RNG, including via thermal energy networks (i.e., district energy). Local governments may be able to build on existing programs and policies to play a key role, in the context of the pending provincial Climate-Aligned Energy Framework.

Collecting building-scale energy data, such as with energy benchmarking and reporting, could also help to better characterize regional energy demand from existing buildings. This opportunity is described in more detail in a separate report on this Climate Action Committee agenda.

ALTERNATIVES

1. That the MVRD Board:

a) Receive for information the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition"; and

b) Direct staff to forward a copy of the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition" to the Mayors and Council Members of each Metro Vancouver member jurisdiction.

2. That the MVRD Board receive for information the report dated April 15, 2024, titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition", and provide alternative direction to staff.

FINANCIAL IMPLICATIONS

This report is for information and does not have any direct financial implications. Costs to hire experts to support the LGI participation were provided for in the departmental operating budget, and are being shared among the parties. A grant for refund of a portion of consultant costs is being sought through the BCUC Participant Assistance/ Cost Award program. The LGI played a significant role in highlighting the financial implications of utility rate decisions, in which a discriminatory cross-subsidy from ratepayers to pay for higher-cost RNG to new customers was a key factor in the BCUC decision. Financial implications of the energy transition more broadly are significant and of critical importance, but are beyond the scope of this report.

CONCLUSION

Metro Vancouver participated with several other jurisdictions as Local Government Interveners (LGI) in three BC Utilities Commission (BCUC) proceedings. Through their participation the LGI elevated the interests of local governments at a pivotal time in the energy transition in the province, with significant implications for their objectives related to affordability, energy security, and climate action. Staff will continue to seek opportunities to contribute constructively to provincial policy for the energy transition, and are exploring opportunities for regional energy planning.

ATTACHMENTS

1. Correspondence from the MVRD Board to the Government of BC, dated February 1, 2024 re: "Coordination Between FortisBC's 2022 Long Term Gas Resource Plan and BC Hydro's 2021 Integrated Resource Plan".
2. Correspondence from the Government of BC, to the MVRD Board, dated February 28, 2024 (Response to Attachment 1 letter).
3. Correspondence from the MVRD Board to the Government of BC, dated September 25, 2023 re: "Changes in Provincial Legislation Needed to Address Gas Utilities in BC".
4. Correspondence from the Government of BC to the MVRD Board, dated January 22, 2024 (Response to Attachment 3 letter).
5. Presentation re: BC Utilities Commission Decisions & Local Government Interests.

REFERENCES

1. BC Utilities Commission Proceedings: FortisBC Energy Inc. 2022 Long-term Gas Resource Plan
2. BC Utilities Commission Proceedings: BC Hydro 2021 Integrated Resource Plan
3. BC Utilities Commission Proceedings: FortisBC Energy Inc. Biomethane Energy Recovery Charge Rate Methodology and Comprehensive Review of a Revised Renewable Gas Program
4. Letter from Ministry of Energy, Mines and Low Carbon Innovation to Mark Jaccard, new Chair and CEO of BCUC, October 3, 2023.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Office of the Chair
Tel. 604-432-6215 or via Email
CAOAdministration@metrovancouver.org

February 1, 2024

File: CR-12-01
Ref: RDCL 2023 Nov 24

The Honourable David Eby, K.C., M.L.A.
Premier of British Columbia
PO Box 9041 Stn Prov Govt
Victoria, BC V8W 9E1
VIA EMAIL: premier@gov.bc.ca

The Honourable George Heyman, M.L.A.
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Govt
Victoria, BC V8W 9E2
VIA EMAIL: ENV.Minister@gov.bc.ca

The Honourable Anne Kang, M.L.A.
Minister of Municipal Affairs
PO Box 9056 Stn Prov Govt
Victoria, BC V8W 9E2
VIA EMAIL: MUNI.minister@gov.bc.ca

The Honourable Josie Osborne, M.L.A.
Minister of Energy, Mines, and Low Carbon Innovation
PO Box 9060 Stn Prov Govt
Victoria, BC V8W 9E2
VIA EMAIL: EMLI.Minister@gov.bc.ca

Dear Premier Eby, Minister Heyman, Minister Kang, and Minister Osborne:

Coordination Between FortisBC's 2022 Long Term Gas Resource Plan and BC Hydro's 2021 Integrated Resource Plan

Metro Vancouver and the BC Government are well-aligned in the pursuit of strong climate action needed to meet our respective climate targets. In the interest of ensuring alignment of provincial energy infrastructure planning with the strategies and actions in Metro Vancouver's *Climate 2050 Energy Roadmap*, Metro Vancouver registered as an intervener and submitted final arguments for the British Columbia Utilities Commission (BCUC) proceedings related to FortisBC's *2022 Long Term Gas Resource Plan* and BC Hydro's *2021 Integrated Resource Plan*, in coordination with the City of Richmond, District of North Vancouver, District of Saanich, and the City of Vancouver. The joint final arguments for both proceedings are enclosed in this letter.

Arising from discussion of the BCUC proceedings, the MVRD Board directed staff to write a letter to the Province to emphasize the need for better coordination between the two utilities. To meet the Province's greenhouse gas emission reduction targets, FortisBC has proposed a gas-centric pathway, whereas BC Hydro's plan emphasizes growing the supply of clean, renewable electricity. Having the two main utilities in BC proposing competing solutions for the energy transition is inefficient and risky. Uncoordinated planning presents risks to securing the necessary supply of low carbon energy and ensuring peak demand can be met, and could result in higher overall energy rates. Coordinated planning that is aligned with science-based climate targets and internationally recognized best practices for the energy transition would provide a clearer and more efficient pathway towards the Province's emission reduction targets, and provide a more robust platform for Metro Vancouver's and member jurisdictions' policymaking.

4515 Central Boulevard, Burnaby, BC, Canada V5H 0C6 | 604-432-6200 | metrovancouver.org
Metro Vancouver Regional District | Greater Vancouver Water District | Greater Vancouver Sewerage and Drainage District | Metro Vancouver Housing Corporation

Therefore, on behalf of the Metro Vancouver Board of Directors, I am writing to ask that the Province accelerate action on the provincial Climate-Aligned Energy Framework (CAEF), including a goal to improve the coordination between FortisBC's and BC Hydro's long-term planning processes. If properly designed to address the barriers noted above, the CAEF can play a critical role in guiding effective coordination between the utilities and ensuring a clean, inclusive, and competitive energy future for BC. This request builds upon Metro Vancouver's previous request to the Province to reform the British Columbia Utilities Commission in the context of a changing climate, urgently enact legislation that reduces greenhouse gas emissions from gas utilities, and meaningfully engage Metro Vancouver on key provincial energy policies.

Climate 2050 guides Metro Vancouver's policies and actions to transition our region to a resilient, low carbon future, and establishes a regional greenhouse gas reduction target of 45% by 2030, compared to 2010 levels, and carbon neutrality by 2050. These targets were formalized in *Metro 2050*, the regional growth strategy. *Climate 2050* is implemented through ten issue-based roadmaps including the *Energy Roadmap,* which sets out goals, strategies, and actions to transition the region to 100% clean, renewable energy. Similarly, the Province has committed to strong climate action within *CleanBC*, including a target to reduce greenhouse gas emissions by 40% by 2030, from 2007 levels, building on its leadership to date.

As home to over half of BC's population, Metro Vancouver is ready to work with the BC Government to craft a clean energy future at both a regional and provincial level, in furtherance of our shared goals to achieve deep greenhouse gas emission reductions.

If you have any questions, please contact Conor Reynolds, Director, Air Quality and Climate Action Services, by phone at 604-456-8811 or by email at conor.reynolds@metrovancouver.org.

Yours sincerely,

George V. Harvie
Chair, Metro Vancouver Board

GVH/HM/nc

cc: Metro Vancouver Board Directors

Encl:

1. Filing from Metro Vancouver Regional District, City of Vancouver, District of Saanich, City of Richmond, District of North Vancouver to the BCUC Proceeding Related to the BC Hydro 2021 Integrated Resource Plan titled "Final Argument of Local Government Interveners", dated December 20, 2023

2. Filing from Metro Vancouver Regional District, City of Vancouver, District of Saanich, City of Richmond, District of North Vancouver to the BCUC Proceeding Related to the FortisBC Energy Inc. 2022 Long Term Gas Resource Plan titled "Final Argument of Local Government Interveners", dated December 20, 2023

BRITISH COLUMBIA

February 28, 2024

Ref: 120224

George V. Harvie
Chair, Metro Vancouver Board

Email: CAOAdministration@metrovancouver.org

Dear George V. Harvie:

Thank you for your letter dated February 1, 2024, regarding the role of the gas and electric utilities in meeting our provincial climate objectives. The Premier has asked me to respond on his behalf.

The Province is committed to building a clean economy that addresses our obligations to combat climate change by driving down emissions, while creating good, family-supporting jobs. As outlined in my Mandate Letter, we are working with the British Columbia Utilities Commission (BCUC) to determine how they can better support British Columbia's clean energy transition. This is done in alignment with the Province's climate goal to achieve net-zero by 2050, while also considering affordability and the impacts to ratepayers. We are encouraged to see local governments actively participating in the utilities' long-term planning proceedings.

Climate change is already making extreme weather events more frequent across the country and around the world. To achieve BC's climate objectives, a shift in how the electric and natural gas systems meet customer needs is required, particularly regarding the management of peak demand. Currently, natural gas distribution utilities meet about two-thirds of the Province's peak winter energy demand. In developing our approach to facilitate BC's transition to cleaner energy systems, close coordination in planning for the future of the electricity and natural gas systems will be required.

As my Ministry develops a Climate Aligned Energy Framework (the Framework), we will need to consider key energy system transition challenges and opportunities, including energy resiliency, affordability, and leveraging utility strengths such as existing infrastructure and low cost of capital. The Province is currently working to bring the two utilities together, to develop joint approaches for optimizing the combined electricity and gas infrastructure to achieve emissions reductions in the most cost-effective way. BC Hydro and FortisBC have significant expertise that will contribute greatly to the development of the Framework.

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Ministry of
Energy, Mines and
Low Carbon Innovation

Office of the Minister

Mailing Address:
PO Box 9060, Stn Prov Govt
Victoria, BC V8W 9E2

Telephone: 250 953-0900
Facsimile: 250 356-2965

The Framework will be a key step to securing our ongoing economic prosperity, enabled by an energy system that is powered by our world-leading low carbon resources. It will set the stage for future work and inform a more detailed energy plan. As my staff continues to build out priority actions through the Framework, we will continue to engage all stakeholders.

I deeply appreciate Metro Vancouver's interest in working with the Province on our mutual climate objectives, and welcome the input provided by the Board of Directors. We look forward to further discussions on how we can work together to achieve our shared objective of a clean, competitive and inclusive energy system.

Thank you again for writing.

Sincerely,

Josie Osborne
Minister

CC: Anne Kang, Minister
Ministry of Municipal Affairs
MUNI.Minister@gov.bc.ca

George Heyman, Minister
Ministry of Environment and Climate Change Strategy
ENV.Minister@gov.bc.ca

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September 25, 2023

File: CR-12-01
Ref: RD 2023 Jul 28

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The Honourable Josie Osborne, M.L.A.
Minister of Energy, Mines, and Low Carbon Innovation
PO Box 9060 Stn Prov Govt
Victoria, BC V8W 9E2
VIA EMAIL: EMLI.Minister@gov.bc.ca

Dear Premier Eby, Minister Heyman, Minister Kang, and Minister Osborne:

Changes in Provincial Legislation Needed to Address Gas Utilities in British Columbia

At its July 28, 2023 regular meeting, the Board of Directors of the Metro Vancouver Regional District (MVRD) adopted the following resolution:

That the MVRD Board:

a) send letters to the Premier, the Minister of Municipal Affairs, the Minister of Environment and Climate Change Strategy, and the Minister of Energy, Mines and Low Carbon Innovation, in response to Richmond City Council's request for support, asking the Government of British Columbia to reform the British Columbia Utilities Commission in the context of a changing climate and urgently enact legislation that regulates greenhouse gas emissions from gas utilities, in alignment with the strategies and actions in the Climate 2050 Energy Roadmap; and

b) request meetings between Metro Vancouver staff and the appropriate provincial ministries, to discuss the issues raised in the letters.

Climate 2050 guides Metro Vancouver's policies and actions to transition our region to a resilient, low carbon future. *Climate 2050* establishes a regional greenhouse gas reduction target of 45% by 2030, compared to 2010 levels, and carbon neutrality by 2050. These targets were formalized in *Metro 2050*, the regional growth strategy. *Climate 2050* is implemented through ten issue based roadmaps, and of these, the *Energy Roadmap* sets out goals, strategies, and actions to transition the region to 100% clean, renewable energy. Similarly, the Province has committed to strong

climate action within *CleanBC*, including a target to reduce greenhouse gas emissions by 40% by 2030, from 2007 levels, building on its leadership to date. Our governments are strongly aligned in the pursuit of strong climate action to meet our respective climate targets.

In May 2023, Metro Vancouver received a request from the City of Richmond asking for Metro Vancouver's support on seven energy policy recommendations to the Province. That request is Attachment 1 to this letter. The City of Richmond's recommendations are aligned with the following actions in the *Climate 2050 Energy Roadmap*, two of which are designated as Big Moves, and are foundational actions to achieving the 2030 and 2050 targets:

- Action 1.1, "Align British Columbia's Energy Objectives with Strong Climate Action", to ensure that the BC's energy objectives outlined in the *Clean Energy Act* reflect strong action on climate change.
- Action 1.2, "Strong Climate Mandate for Energy Utilities", to ensure that the BCUC regulates public utilities in a manner that ensures their appropriate contribution to achieving BC's energy objectives, which include BC's legislated greenhouse gas reduction targets.
- Action 1.4, "Long-term Planning Scenarios for the Transition to 100% Clean, Renewable Energy", to ensure that the utilities are coordinating their long-term resource plans, using common planning scenarios.
- Action 1.6, "Implement Tracking, Verification, and Reporting Requirements for Renewable Natural Gas Supply", to guarantee the integrity of emission reductions from renewable natural gas (RNG) supply, and mitigate risks of double-counting.

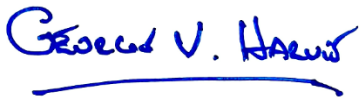
Therefore, on behalf of the MVRD Board, I am writing to ask that the Province reform the British Columbia Utilities Commission in the context of a changing climate and urgently enact legislation that regulates greenhouse gas emissions from gas utilities. These reforms will be essential to protect the affordability of energy services through the clean energy transition.

The Province is a leader on climate action, implementing the first carbon tax in North America, establishing the *BC Low Carbon Fuel Standard*, developing *CleanBC*, and now, considering progressive policies such as an emissions cap for the oil and gas industry. It is clear that the Province is taking action to address the above topics. However, given that provincial energy policy has a significant impact on Metro Vancouver residents, Metro Vancouver is writing to request deeper engagement from the Province on policies related to the *Energy Roadmap* actions. Specifically, Metro Vancouver would like to be meaningfully engaged on critical pieces of provincial energy policy, such as development of the natural gas emissions cap, as well as tracking, verification, and reporting requirements for RNG supply. Local governments have a unique perspective related to the energy transition, which should be reflected within provincial policy deliberations.

Metro Vancouver staff would like to meet with ministry staff to discuss the issues raised in this letter and how to work more closely together on energy policy. Staff will be in touch with your offices to request meetings. If you have any questions in the meantime, please contact Conor Reynolds, Director, Air Quality and Climate Action Services, by email at conor.reynolds@metrovancouver.org or by phone at 604-456-8811.

Metro Vancouver looks forward to continuing to work with the BC Government on advancing climate action at both a regional and provincial level, in furtherance of our shared goals to achieve deep greenhouse gas emission reductions and ensure affordability.

Yours sincerely,



George V. Harvie
Chair, Metro Vancouver Board

GVH/HM/nc

Encl: Report from staff to Climate Action Committee titled “Changes in Provincial Legislation Needed to Address Gas Utilities in British Columbia”, dated June 19, 2023

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BRITISH COLUMBIA

January 22, 2024

George Harvie
Office of the Chair
Metro Vancouver Board
Sent via email: chair@metrovancouver.org

Dear Chair George Harvie:

Thank you for your letter received on September 25, 2023, regarding changes in provincial legislation needed to address gas utilities in British Columbia.

The Province is committed to building a clean economy that addresses our obligations to combat climate change by driving down emissions, while creating sustainable, family-supporting jobs. As outlined in the Mandate Letter to the Minister of Energy, Mines and Low Carbon Innovation, Minister Osborne and her staff are working with the BC Utilities Commission (BCUC) to determine how they can better support BC's clean energy transition. This is done in alignment with the Province's climate goal to achieve net-zero by 2050, while also considering impacts to ratepayers and affordability. We value the input of local governments on the role of the BCUC.

Through the CleanBC Roadmap to 2030, the Province committed to phasing out utility gas equipment incentives and establishing an emissions cap for natural gas utilities. In June 2023, amendments were made to the Demand-Side Measures Regulation under the *Utilities Commission Act* so that gas utilities can no longer provide incentives for conventional gas-fired equipment that is less than 100 percent efficient.

Work is underway to thoroughly consider how we undertake energy supply and demand planning for a low carbon future that meets the needs of people and communities. One of our priorities is to create a Climate-Aligned Energy Framework for BC with an overall goal of maximizing our province's production of clean energy to use at home and for export.

.../2

Office of the Premier

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Mailing Address:
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Location:
Parliament Buildings
Victoria

As Minister Osborne and her staff work to develop that framework, the views expressed in your letter will be considered, and we welcome staff-to-staff discussions as this work continues to achieve our mutual climate goals.

Thank you, again, for writing.

Sincerely,

David Eby, KC
Premier

cc: Honourable Josie Osborne
Minister of Energy, Mines and Low Carbon Innovation

Honourable George Heyman
Minister of Environment and Climate Change Strategy

Honourable Anne Kang
Minister of Municipal Affairs

Attachment 5

BC Utilities Commission Decisions

& LOCAL GOVERNMENT INTERESTS

Lise Townsend
Division Manager, Air Quality and Climate Action Services

metrovancouver

Climate Action Committee | May 9, 2024
67556644

BC UTILITIES COMMISSION (BCUC) PROCEEDINGS

Background

- What is the BCUC?
- What is a Proceeding?
- What is the role of Interveners?
- Where is the information posted?

3 BCUC PROCEEDINGS

FortisBC Long-Term Gas Resource Plan (LTGRP)

20-year plan to preserve gas system load and shift from fossil natural gas to renewable gases

- MVRD
- City of Vancouver
- City of Richmond & LI Energy Co.
- District of North Vancouver
- District of Saanich

BC Hydro Integrated Resource Plan (IRP)

20-year plan to meet anticipated demand for electricity, including for accelerated electrification

- MVRD
- City of Vancouver
- City of Richmond & LI Energy Co.
- District of North Vancouver
- District of Saanich

FortisBC RNG Rates

Included proposal to provide mandatory 100% RNG to new buildings with rolled-in pricing

- MVRD
- City of Vancouver
- City of Richmond & LI. Energy Co.
- District of North Vancouver
- District of Saanich
- City of Victoria

LOCAL GOVERNMENT INTERVENERS FINAL ARGUMENT: FORTIS BC LONG-TERM GAS PLAN

Local Government Interveners recommended that the LTGRP not be used as the basis for decision-making and planning

Uncertain supply of RNG and hydrogen; reliance on unknown technologies

Uncertain infrastructure impacts, including hydrogen blending and separate "backbone“ pipelines

Integration and compatibility with BC Hydro long-term planning lacking - direction needed from Province

LOCAL GOVERNMENT INTERVENERS FINAL ARGUMENT: BC HYDRO RESOURCE PLAN

Local Government Interveners recommended that the BCUC accept the IRP and direct BC Hydro to update the plan within 18 months with attention to local demand for electrification.

Planning for accelerated electrification needed to support local government climate targets

Transmission and distribution to meet local electrification needs should be included in a near-term update

Integration and compatibility with FortisBC long-term planning lacking - direction needed from Province

LOCAL GOVERNMENT INTERVENERS FINAL ARGUMENT - FORTISBC RNG RATES

Local Government Interveners recommended that the BCUC reject the application.

FortisBC's proposal is *discriminatory* *and violates* rate-making principles. It amounts to a $750 million subsidy over the next 8 years, from existing customers to new customers.

Long-term supply of RNG in question; risk of double-counting GHG reduction from RNG procured from outside the province

Proposal would **undermine LG policy-making authority** for new construction, and skew investments toward gas systems

BCUC DECISIONS

FortisBC Long-Term Gas Resource Plan (LTGRP)

✓ **Broadly accepted** LTGRP
x **Rejected** planned investments in LNG and Resiliency Plan
? **Did not address** lack of coordination between utilities

BC Hydro Integrated Resource Plan (IRP)

✓ **Accepted** the IRP including Signposts Update and 3,700 GWh new power
? **Did not address** lack of coordination between utilities

FortisBC RNG Rates

✓ **Accepted** the Voluntary RNG Service and the RNG Blend Service
x **Denied** the RNG Connections Service; "unreasonable and unduly discriminatory"

UNCERTAINTIES

FortisBC and BC Hydro Long-Term Plans

- Alignment with provincial and local government GHG targets
- Green gases: availability, infrastructure, cost
- Electrical system build-out – timeline and costs
- Lack of coordinated planning remains a concern

KEY FINDINGS

- Value to participating; elevated interests and profile, protected local government policy-making authority
- Need to continue to advocate for provincial climate-aligned energy policy
- Potential role for local planning and distributed energy

QUESTIONS?

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To: Climate Action Committee

From: Morgan Braglewicz, Air Quality Planner, and
Erik Blair, Senior Planner, Air Quality and Climate Action Services

Date: April 16, 2024 Meeting Date: May 9, 2024

Subject: **Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 16, 2024, titled "Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings".

EXECUTIVE SUMMARY

At its January 2024 meeting, the MVRD Board chose not to proceed with engagement on a potential regulatory approach to phase in emissions limits for existing large buildings. In response to the Board's expressed concerns about the approach, including impacts on affordability, staff have been exploring alternative means to supporting large buildings in the energy transition with an aim to protecting human health and reducing energy waste and associated costs. With the rise in extreme heat events and cold snaps in the region in recent years, every building needs a plan to improve energy efficiency, safeguard occupant health and comfort, and reduce emissions.

Experience in over 60 North American jurisdictions demonstrates that building *benchmarking* and *reporting requirements* are a well-accepted practice that can enable these benefits. Benchmarking consists of tracking a building's energy and emissions performance over time and comparing it with other similar buildings so that owners have more information about their building's performance. Benchmarking and reporting requirements have become a common approach for jurisdictions seeking to support building owners to retrofit their buildings. Staff will use feedback on this report to seek future direction from the MVRD Board on exploring options for energy and emissions benchmarking and reporting requirements in existing large buildings.

PURPOSE

To inform the MVRD Board, and provide an opportunity for feedback on an alternative approach to supporting existing large buildings via energy and emissions benchmarking and reporting programs, an approach being used in other jurisdictions to support building owners' decisions about energy use, emissions, and retrofits.

BACKGROUND

In various venues, member jurisdictions have expressed interest in the MVRD Board considering the implementation of regional benchmarking and reporting requirements. Metro Vancouver's *Climate 2050 Buildings Roadmap* identifies the importance of reducing emissions from existing large buildings by establishing an energy benchmarking and reporting program and introducing mandatory building performance standards. In January 2024, the MVRD Board did not endorse

continued engagement on a proposed approach to develop a regulation involving mandatory building performance standards to reduce greenhouse gas emissions from existing large buildings.

The City of Vancouver now requires energy and carbon reporting, and other municipalities, such as the City of Richmond, are considering similar requirements. In addition, there is a voluntary benchmarking program in place in BC that a small proportion of buildings in the region currently participate in. This report provides information about best practices for benchmarking and reporting programs from other jurisdictions, and describes the benefits of taking a regional approach.

BEST PRACTICES IN ENERGY AND EMISSIONS BENCHMARKING AND REPORTING

Benchmarking is the process of measuring a building's energy use and emissions and comparing performance over time and to other similar buildings. Benchmarking programs include a reporting component in which building owners provide building energy and emissions data to a program authority. Data can then be anonymized or aggregated by the authority to allow building owners to compare their energy use and emissions to other buildings. This information can take different forms such as databases, maps, and reports. Benchmarking and reporting can be undertaken as a stand-alone program, and it has proven to be a foundational program element in other jurisdictions that have implemented regulatory policies for reducing GHG emissions from existing large buildings.

Providing Building Owners with Information and Supports for Retrofits

The primary objective of benchmarking and reporting programs is to increase building owner awareness of building energy and emissions performance, with the ultimate goal of identifying opportunities to cut energy waste, reduce costs, and improve occupant health and comfort. Many building owners are unaware of how their building performs, especially in comparison to similar buildings. Effective benchmarking programs can help building owners identify energy and cost reduction opportunities, promoting data-driven decisions on retrofits and efficiency measures.

Data from benchmarking and reporting programs can also inform the design of support programs and other policies. Supportive programs connecting building owners to information and incentives for building retrofits can be tailored to local needs based on information from reporting. Benchmarking and reporting programs are sometimes implemented prior to building performance requirements, and data from these programs may be used as a basis for data-informed policy-making by the regulating authority.

Benchmarking and reporting can be voluntary or mandatory. The potential benefits of benchmarking are greatest in mandatory programs where all similar buildings are required to report on their performance, leading to more comprehensive data for performance comparison. This enables a broader group of building owners to participate and access the benefits that benchmarking can offer, creating a level playing field for all owners with similar building types. Additionally, program authorities can more effectively design programs and connect building owners to resources that support upgrades and cost-saving energy reduction measures.

Benchmarking Outcomes and Benefits

Building benchmarking and reporting programs have demonstrated measurable benefits of reduced energy use and costs, and improved health outcomes:

- **Reduced energy use and costs**: Data from the Institute for Market Transformation (Reference 1) shows that buildings across the U.S. that benchmarked over a three-year time span reduced their energy consumption by an average of 2.4% annually, which for a 500,000-square-foot office building could result in estimated cumulative energy cost savings of $120,000 USD over three years.
- **Improvements in health**: Information from benchmarking in New York City (Reference 2) has shown a strong linkage between average building energy use intensity and incidence of asthma-related emergency room visits.

To realize these benefits, building owners first need to understand their building energy and emissions performance. Information from benchmarking buildings is the foundation for making data-informed decisions about energy retrofits and efficiency measures that reduce energy use and costs. Experience in other jurisdictions has shown that buildings that undertake benchmarking and understand their buildings' energy and emissions are more likely to take energy reduction actions such as retrofits.

Experience in Other Jurisdictions

Building energy and emissions benchmarking and reporting have become common practice internationally and within Canada and BC, with over 60 jurisdictions in North American having implemented such programs. Often, the programs are implemented at a local government level where large buildings are located. Mandatory benchmarking and reporting programs are in place for public, commercial, and multi-unit residential buildings in Ontario, Montreal, and Vancouver. There are voluntary programs in place in BC, Nova Scotia, Winnipeg, Edmonton, and Calgary.

Building Benchmark BC is the largest voluntary benchmarking and reporting program in North America, and is entering its fifth reporting year. In 2023, over 1,300 buildings in BC voluntarily participated in the program, including over 350 buildings in the Metro Vancouver region. Metro Vancouver Housing participates in this program, reporting on the performance of 15 buildings. The program has been successful in supporting building owners that recognize the benefits of benchmarking with a platform that allows them to report their performance and compare it to other buildings. However, the voluntary nature of the program means that its reach within Metro Vancouver has been limited to a small percentage of all large buildings. Many building owners in the region that could benefit from participation in such a program are unaware of the free services offered by Building Benchmark BC.

Several member jurisdictions have expressed interest in the use of benchmarking and reporting to achieve the objectives of their climate action plans. To date, the BC Government has signaled that it does not intend to establish a mandatory provincial benchmarking and reporting program. Within BC, there are several local governments exploring or implementing benchmarking and reporting programs:

- In March 2024, the **City of Vancouver** launched Energize Vancouver (Reference 3), a resource and information hub helping owners and managers of large existing commercial

and multi-unit residential buildings understand and comply with the City's new energy and greenhouse gas emissions requirements. Large commercial buildings will submit their first annual energy usage and carbon emissions reports by June 2024. Beginning in 2026, building performance standards will also be phased in**.**

- The **City of Richmond** is advancing proposed energy and emissions reporting requirements for large existing buildings.
- The **City of Victoria, District of Saanich,** and **Capital Regional District** are currently engaging on a proposed program to require large building owners to submit annual energy and carbon emissions reports, providing a regionally consistent approach to benchmarking and reporting.

Benefits of Regional Benchmarking and Reporting

Regional scale requirements for large building owners to benchmark and report their energy and emissions can achieve broad and consistent benefits for building owners and occupants. Based on the experience of other jurisdictions, benchmarking and reporting is most effective when it is mandatory for all buildings of similar types and sizes. This allows all building owners of similar buildings to effectively compare their building's performance to inform decisions on energy use and retrofits to reduce costs and improve health outcomes, reaching a broader group of owners and occupants. A regional requirement creates a consistent approach for owners of buildings across the region, and it would provide data to guide regional support programs and inform future policy discussions. The data collected could also inform utility energy planning as it allows for more detailed analysis of regional energy demand, a key emerging need.

Benchmarking and reporting programs generate the data needed to provide building owners with effective retrofit supports and incentives. Various support programs are in place and under development in BC, including the BC Retrofit Accelerator (BCRA). The BCRA was established at the regional scale by the Zero Emissions Innovation Centre using seed funding from Metro Vancouver's Sustainability Innovation Fund, and in 2023 was expanded to the provincial level. It is currently developing a suite of support programs that will guide building owners to plan and undertake deep emissions retrofits in buildings, and has secured $15.6M in funding to support these initiatives. Services include support for measuring building energy use and emissions, building assessments, contractor referrals, advice on incentives and financing, and training of building staff.

Next Steps

The information in this report is presented to provide background on the outcomes and benefits of energy and emissions benchmarking and reporting for existing large buildings, as well as the status of benchmarking programs in other jurisdictions. To ensure building owners across Metro Vancouver's member jurisdictions have consistent access to information and supports for building retrofits, staff are exploring options for a potential region-wide approach to benchmarking and reporting requirements for existing large buildings, which would be advanced for the MVRD Board's consideration in a future report.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications arising from this report. Staff resources and consulting costs for the work described in this report were part of the Board-approved budgets for Air Quality and Climate Action Services in current and past years. Metro Vancouver conducted a consulting study on building energy and emissions benchmarking programs in partnership with the City of Surrey and with BC Hydro funding support. Metro Vancouver contributed $37,500 with an additional contribution of $37,500 from the City of Surrey and $75,000 from BC Hydro.

CONCLUSION

Building benchmarking and reporting requirements for existing large buildings has emerged as an effective foundational tool that can lead to reduced energy waste and costs while improving health outcomes for occupants. Several jurisdictions within Metro Vancouver, BC, and Canada are among over 60 jurisdictions across North America that have advanced voluntary or mandatory benchmarking programs. Experience in other jurisdictions has demonstrated that benefits of benchmarking and reporting are greatest when programs are mandatory and accessible to a broad spectrum of building owners and occupants, and are connected to support programs providing access to information and incentives for retrofits. Some Metro Vancouver member municipalities are advancing such programs, however a regional approach would provide more consistency and benefits at scale. Staff will use feedback to this report to shape a future report to the MVRD Board seeking direction on exploring potential options for regional benchmarking and reporting requirements on energy and emissions in existing large buildings.

ATTACHMENT

1. Presentation re: Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings.

REFERENCES

1. Energy Benchmarking and Transparency Benefits - Institute for Market Transformation
2. The Benefits of Benchmarking Building Performance - Pacific Coast Collaborative, December 2015
3. Energize Vancouver – City of Vancouver

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Best Practices in Energy and Emissions Benchmarking and Reporting for Existing Large Buildings

Morgan Braglewicz
Air Quality Planner, Air Quality and Climate Action Services

Erik Blair
Senior Planner, Air Quality and Climate Action Services

Climate Action Committee Regular Meeting, May 9, 2024
67305761

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BUILDING BENCHMARKING AND REPORTING

- **Measuring a building's energy and emissions performance** over time; comparing it with other similar buildings
- Allows building owners to better **understand building performance**, make informed plans and decisions on retrofits
- Can **reduce energy waste and associated costs**, **improve health and comfort** for building occupants
- **Common practice** in over 60 jurisdictions in North America

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OUTCOMES AND BENEFITS

Benchmarking and reporting → Building retrofits

Building Owners
- Data-informed asset management
- Guide and justify energy efficiency investments
- Reduce energy use and costs

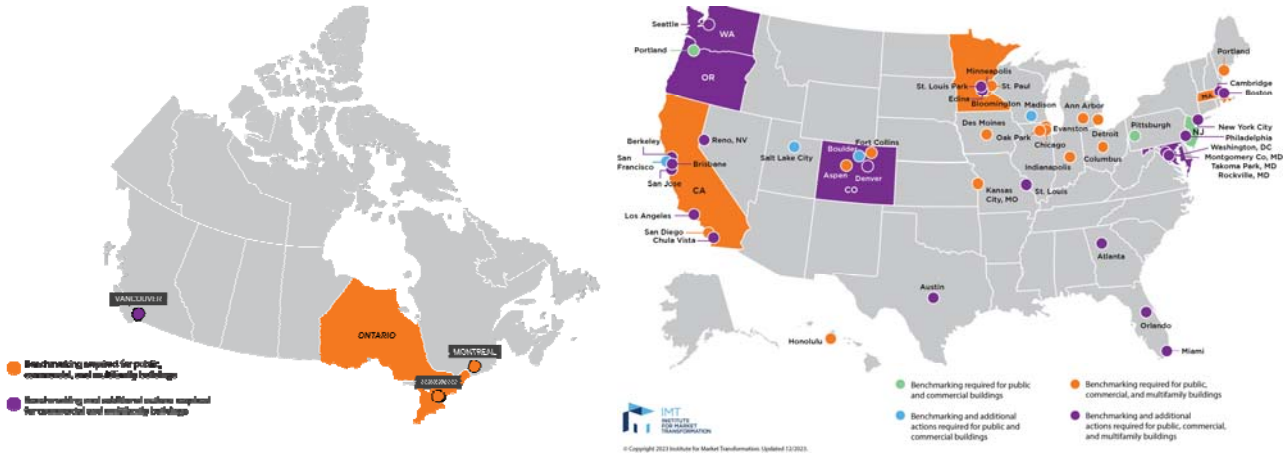
Owners, Occupants, Tenants
- Protect health and safety (extreme heat, smoke)
- Reduce energy costs
- Improve comfort and productivity

Government
- Data-informed policies and programs

Community
- Protected air quality
- Reduced GHG emissions

BENCHMARKING AND REPORTING IN NORTH AMERICA

Requirements in over 60 jurisdictions

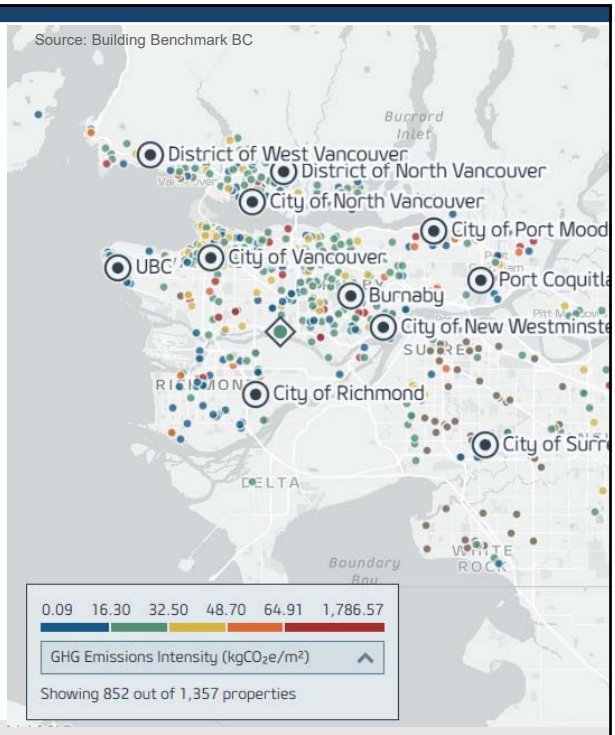


BENCHMARKING IN BC

Key organizations active in benchmarking and support programs:

- Building Benchmark BC
- BC Retrofit Accelerator

Several member municipalities are pursuing benchmarking and reporting requirements



NEXT STEPS

Staff are seeking feedback to inform options for regional benchmarking and reporting on energy and emissions in existing large buildings

Thank you

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7

To: Climate Action Committee

From: Conor Reynolds, Director, Air Quality and Climate Action Services

Date: April 29, 2024 Meeting Date: May 9, 2024

Subject: **Manager's Report**

RECOMMENDATION
That the Climate Action Committee receive for information the report dated April 29, 2024, titled "Manager's Report".

CLIMATE ACTION COMMITTEE 2024 WORK PLAN
Attachment 1 sets out the Committee's Work Plan for 2024. The status of work plan priorities is indicated as pending, in progress, or complete. The work plan is updated, as needed, to include new priorities that arise, items requested by the Committee, and changes to the schedule.

UBCM RESOLUTIONS SUPPORTING CLIMATE 2050 PRIORITY ADVOCACY ACTIONS SUBMITTED TO LOWER MAINLAND LOCAL GOVERNMENT ASSOCIATION
At its January 11, 2024 meeting, Metro Vancouver's Climate Action Committee directed staff to prepare resolutions related to key Climate 2050 advocacy actions for the committee to consider for submission to the Lower Mainland Local Government Association (LMLGA) in February 2024. Staff prepared three resolutions corresponding to priority advocacy actions in Climate 2050 related to Buildings, Transportation, and Energy, calling on the BC Government to increase funding for programs in these areas to support affordability and climate action:

1) Provincial Funding for Energy Efficient and Zero Emissions Equipment for Existing Buildings
2) Provincial Funding for Active Transportation Infrastructure
3) Provincial Funding for Electric Vehicle Charger Deployment

The resolutions were amended and supported at the Committee's February 8, 2024 meeting (Reference 1), and were endorsed by the Metro Vancouver Board at its February 23, 2024 meeting and subsequently submitted to LMLGA along with required background reports for each (References 2, 3 and 4). LMLGA will consider these resolutions at its 2024 Annual Conference and AGM on May 1-3, 2024. Any resolutions endorsed by LMLGA will be submitted to the Union of BC Municipalities (UBCM) for consideration at its 2024 Conference in September.

ENVIRONMENTAL ASSESSMENTS

Tilbury Marine Jetty Project – Provincial Approval
Tilbury Jetty Limited Partnership is proposing the Tilbury Marine Jetty (TMJ) at Tilbury Island on the Fraser River in Delta, BC, next to the FortisBC Tilbury LNG storage facility, to allow for ship-to-ship LNG refueling ("bunkering") and for bulk delivery to overseas markets. On March 27, 2024, the Government of British Columbia announced its approval of the Tilbury Marine Jetty (TMJ) Project.

An Environmental Assessment Certificate subject to 22 conditions was issued to the Tilbury Jetty Limited Partnership (Reference 5). Federal approval of the project is still pending.

The TMJ Project will see a new marine jetty constructed on Tilbury Island in the Fraser River in Delta to provide berthing and loading facilities for liquefied natural gas (LNG) carriers and bunker vessels with a carrying capacity of up to 100,000 cubic metres. The proposed LNG fueling jetty will be used to fill carrier ships exporting LNG and bunkering vessels that then refuel ships in other locations. The project will be supplied from the existing FortisBC Tilbury LNG Plant nearby.

As is usual for such projects, Metro Vancouver staff participated in the environmental assessment process for the TMJ Project and provided input relative to Metro Vancouver's plans, assets, infrastructure, and legislated responsibilities. Based on this input, the provincial approval conditions include explicit requirements for the Tilbury Jetty Limited Partnership to consult with Metro Vancouver on environmental management, river bed monitoring, air quality management, and greenhouse gas emissions.

With respect to greenhouse gas emissions, the conditions include development of a Greenhouse Gas Reduction Plan (GGRP) for the project during operations in the Marine Terminal Area, in consultation with Metro Vancouver and others. The GGRP must include an estimation of projected annual greenhouse gas (GHG) emissions, total GHG emissions for operations, GHG emissions over the life of the project, consideration of emission reduction targets and schedules, an analysis of how municipal, provincial, national or international mandatory GHG regulations or objectives will be achieved and an analysis of best available technologies to minimize GHG emissions.

In the Minister's Reasons for Decision Report on the TMJ Project, it was noted that the TMJ Project is a distinct project from the Tilbury Phase 2 LNG Expansion Project which will require a separate Environmental Assessment Certificate. The Tilbury Jetty Limited Partnership confirmed that the TMJ Project does not require approval of the Tilbury Phase 2 LNG Expansion Project to proceed. For more detailed information on the TMJ Project decision, see Reference 6.

As described in report E2 titled "BC Utilities Commission Decisions and Local Government Interests in the Energy Transition" included in this May 2024 Climate Action Committee agenda, the BC Utilities Commission recently accepted FortisBC's 2022 Long Term Gas Resource Plan, however it rejected the plan's proposed investments in LNG bunkering and global export due to uncertainty in FortisBC's proposal, noting in particular a lack of contracted demand as well as permits for the proposed jetty, stating that the BCUC "is not in a position to determine that pursuit of sales, and related infrastructure investments in LNG for bunkering and export market will be beneficial to ratepayers and in the public interest". The implications of this decision, if any, on the TMJ project are uncertain at this time.

Tilbury Phase 2 LNG Expansion Project – Undergoing Environmental Assessment Review
In December, 2020, FortisBC filed a Certificate of Public Convenience and Necessity (CPCN) with the BC Utilities Commission (BCUC) to add additional storage and vaporization capabilities at the existing Tilbury LNG facility, while also replacing FEI's 50-year old Tilbury Base Plant. As outlined in FortisBC's 2022 Long-Term Gas Resource Plan (LTGRP), the expansion of this facility is intended to

improve resilience of their system to disruptions, such as the 2018 rupture to the T-South transmission pipeline. The expanded facility would allow for storing sufficient LNG supply to weather a 3-day "no-flow event" on the T-South system without load curtailment.

The proposed Tilbury Phase 2 LNG Expansion Project is undergoing a substituted Environmental Assessment (EA) review under the federal *Impact Assessment Act* and the British Columbia *Environmental Assessment Act, 2018*. The BC Environmental Assessment Office (BC EAO) is leading the EA review under the *Environmental Assessment Act (2018)* which consists of eight phases (Attachment 2).

The Tilbury Phase 2 LNG Expansion Project entered the EA review process on February 27, 2020, and is currently in the fourth stage of the EA review, i.e., the Application Development and Review phase. During the Application Development stage of the EA, the proponent works with participating Indigenous nations and EA participants to develop their Application for an Environmental Assessment Certificate. This is followed by the Application Review stage of the EA process where the BC EAO, participating Indigenous nations, Technical Advisory Committee, and Community Advisory Committee review the Application and direction is provided to the proponent on revisions that should be reflected in their revised Application. FortisBC has three years from the date of the issuance of the Process Order (i.e., June 13, 2022) to submit their Application and the Application Review stage of the EA process has a 180-day review timeline.

The BC EAO advised in mid-April 2024 that the proponent expects to submit its Application in approximately 120 days, which would be in mid-August.

As noted in report E2 on the May CAC agenda, the BCUC issued its decision on FortisBC's 2022 LTGRP in March, 2024. While the BCUC accepted the overall plan, it rejected the Resiliency Plan component of the LTGRP, noting deficiencies in the Resiliency Plan that had been identified earlier by the Commission in its review of the Tilbury LNG Storage Expansion Project. However, as FEI has already committed to preparing a more robust and comprehensive Resiliency Plan for its next LTGRP, the rejection of the plan is not anticipated to materially affect the EAO process at this time.

Metro Vancouver staff will continue to participate in the environmental assessment process for the project and provide input relative to Metro Vancouver's plans, assets, infrastructure, and legislated responsibilities. Staff will also report back to the CAC and Board regarding any relevant implications for this project that may arise from the BCUC's decision on FortisBC's LTGRP (e.g., investments in LNG, as described in the Tilbury Marine Jetty project above), and/or future proceedings, as appropriate.

NATURE AND ECOSYSTEMS

Tree Canopy Cover, Impervious Surface, and Tree Regulations

The *Climate 2050 Nature and Ecosystems Roadmap* commits Metro Vancouver to "provide data and resources to support urban forest management" (Action 4.2). A newly-released Tree Canopy Cover and Impervious Surface Report (Reference 7) summarizes a regional-scale analysis of tree canopy cover and imperviousness, reports on change since 2014, and estimates land that is potentially

available for tree planting, as well as future loss projections. Within the region's urban areas, impervious surface increased by 4 percent since 2014 (from 50 to 54 percent) and tree canopy cover decreased by 1 percent (from 32 to 31 percent) between 2014 and 2020.

Growth and intensification pressures, as well as implementation of the new provincial housing legislation, will likely lead to further tree canopy cover losses and impervious surface increases. However, the report concludes that it is possible to offset those tree canopy cover losses and achieve the Metro 2050 tree canopy cover target (40 percent within the Urban Containment Boundary by the year 2050) with the implementation of progressive local tree retention and urban forest expansion strategies.

The Metro Vancouver Tree Regulations Toolkit (Reference 8) was recently updated with more robust information about local land use-focused tree protection and urban forest enhancement tools. The updated toolkit recommends requiring adequate space to retain or grow trees post-development, and using regulatory tools such as land use bylaws, development permit areas, and development, subdivision, and servicing bylaws, to support the foundation for long-term tree protection and growth. Regional Planning staff are sharing these materials with member jurisdictions as part of Metro Vancouver's role in providing data and resources, convening practitioners, and advocating for innovative approaches that improve the health and resilience of the region's urban forests.

ENGAGEMENT AND OUTREACH

Climate Action Dialogues: Transportation – May 28, 30, and June 6, 2024

Metro Vancouver's Climate Action Dialogues return this spring with a focus on transportation, the largest source of regional greenhouse gas (GHG) emissions. These dialogues will explore ways to move people and goods, while relying less on individual cars. This is the third installment of a regional dialogues series that highlights key areas of *Climate 2050*.

Dialogues will take place May 28 in Surrey, May 30 in Vancouver, and there will be an online webinar on June 6. Each will have open remarks from a Director. Speakers include representatives from local governments, CEO of Movmi, Board Chair of BC Cycling Coalition, and more. The sessions will be moderated by Uytae Lee, Founder, About Here, and a popular advocate for civil participation in land use and transportation planning.

Climate Action Committee members are welcome to register online or by contacting Lisa Williams, External Relations (Climate2050@metrovancouver.org). A link to the Climate Action Dialogues page of the Metro Vancouver website has been included as Reference 9.

BC Lung Foundation *State of the Air 2023* Report

In February 2024, the BC Lung Foundation released the *State of the Air 2023* report for British Columbia (Reference 10). The report is published annually by BC Lung, and provides a snapshot of key air quality issues across the province. This year's edition includes articles on wildfire smoke action plans for individuals, health effects of low levels of air pollution, a recap of the 2023 Air

Quality and Health Workshop, updates from partner agencies on air quality and health actions underway in BC, and a data snapshot of BC's air quality levels in 2022 (Reference 11).

ATTACHMENTS

1. Climate Action Committee 2024 Work Plan, dated April 29, 2024
2. BC EAO Environmental Assessment Process Phases

REFERENCES

1. UBCM Resolutions Supporting Climate 2050 Priority Advocacy Actions – February 8, 2024 Report to Climate Action Committee
2. Background Report- Provincial Funding for Energy Efficient and Zero Emissions Equipment for Existing Buildings
3. Background Report- Provincial Funding for Active Transportation Infrastructure
4. Background Report- Provincial Funding for Electric Vehicle Charger Deployment
5. Environmental Assessment Certificate – Table of Conditions
6. Ministers' Reasons for Decision Report – Tilbury Marine Jetty Project
7. Tree Canopy Cover and Impervious Surface Report
8. Metro Vancouver Tree Regulations Toolkit
9. Climate Action Dialogues | Metro Vancouver
10. British Columbia Lung Foundation State of the Air Report 2023
11. British Columbia Lung Foundation State of the Air Report 2023 – Technical Appendix

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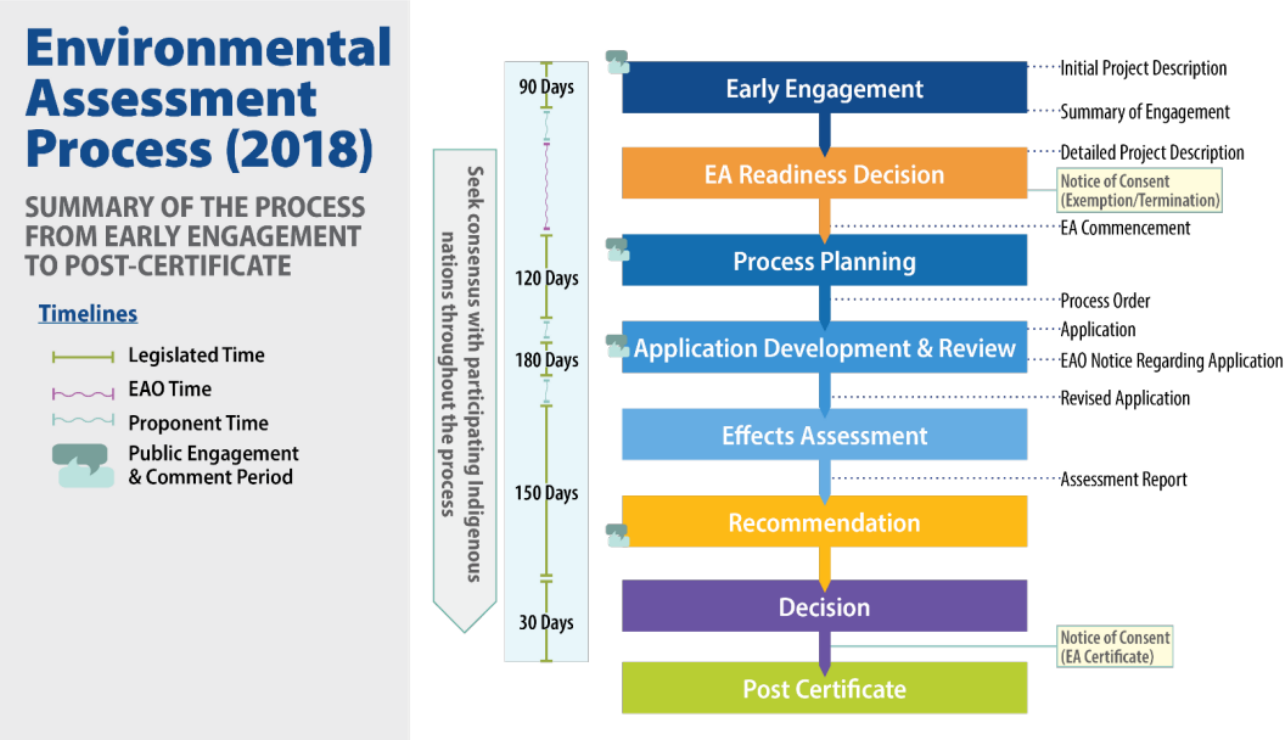
Climate Action Committee 2024 Work Plan
Report Date: April 29, 2024

Priorities

1st Quarter	**Status**
Climate Action Committee meeting schedule and work plan	Complete
Climate 2050 priority implementation actions for 2024 to 2026	Complete
Next phase of engagement on large buildings GHG emission regulation	Complete
Climate 2050 engagement and public education priorities	Complete
Draft Climate 2050 Land Use and Urban Form Roadmap	In Progress
Metro 2050 climate policy enhancement project	In Progress
2nd Quarter	**Status**
Draft Climate 2050 Human Health and Well Being Roadmap	In Progress
Overview of air quality advisory program and preparedness for 2024 season	In Progress
Update on heavy-duty vehicle emission reduction approaches	Pending
Initiate engagement on emission regulation for small non-road engines	In Progress
Update on Driving Down Emissions project	In Progress
Appointment of Assistant District Director and Enforcement Officers	Complete
Regional multi-hazard mapping project update	Complete
Agricultural Land Use Inventory	Pending
Update on Metro Vancouver Retrofit Accelerator	Pending
Update on outreach for Residential Indoor Wood Burning Bylaw	Pending
Outcome of BC Utilities Commission proceedings	In Progress
3rd Quarter	**Status**
Climate 2050 Annual Progress Report	Pending
Update to Regional Ground Level Ozone Strategy	Pending
Annual Air Quality Report	Pending
Update to internal carbon price policy	Pending
Amendments to boilers and process heaters emission regulation	Pending
4th Quarter	**Status**
Draft Climate 2050 Water and Wastewater Infrastructure Roadmap	Pending
Draft Climate 2050 Waste Roadmap	Pending
Regional air quality objectives	Pending
Update on Corporate Energy and GHG management	Pending
Metro Vancouver workplace and public electric vehicle charging strategy	Pending
Report on 2024 air quality advisory season	Pending
Update on ecosystem services on agricultural lands	Pending
Ecological Health Framework progress report	Pending
Update on regulatory review for reducing emissions from industrial sources	Pending
Annual budget and five-year financial plan	Pending

BC EAO Environmental Assessment Process Phases



Source: [EAO User Guide 2019 (gov.bc.ca)]

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Climate Action Committee

From: Carla Stewart, Senior Planner, Regional Planning and Housing Services

Date: March 26, 2024 Meeting Date: May 9, 2024

Subject: **Regional Food Systems Strategy – Project Launch**

At its meeting on March 8, 2024, the Regional Planning Committee received the attached report titled "Regional Food Systems Strategy – Scope of Work and Engagement (Phase 2)" and passed the recommendation to receive for information. The report provides the following:

- an overview of the work completed within the region to support a sustainable, resilient and healthy food system since the first *Regional Food System Strategy* was endorsed in 2011;
- the food system policy gaps identified during the preparation of the *Climate 2050 Agriculture Roadmap*;
- the work initiated by Metro Vancouver and Member Jurisdictions since 2011 that supports the regional food system; and
- the scope of work and engagement timeline proposed to support updating the existing Strategy.

The update to the *Regional Food System Strategy* is identified as a priority action in the *Board Strategic Plan (2022 – 2026)*, and as a Corporate Leadership action in the *Climate 2050 Agriculture Roadmap.* It is intended to connect with all segments and sectors of the region's food system, better understand the issues, challenges and successes each sector has experienced over the past 13 years, develop a shared vision and goals, and establish actions and a strategic direction to move forward toward a more resilient, robust, abundant, and efficient food system.

The report is presented here to the Metro Vancouver Climate Action Committee for its information.

ATTACHMENT

1. Regional Planning Committee report dated February 8, 2024, titled "Regional Food Systems Strategy – Scope of Work and Engagement (Phase 2)".

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Regional Planning Committee

From: Carla Stewart, Senior Planner, Regional Planning and Housing Services

Date: February 8, 2024 Meeting Date: March 8, 2024

Subject: **Regional Food System Strategy Update – Scope of Work and Engagement (Phase 2)**

RECOMMENDATION

That the Regional Planning Committee receive for information the report dated February 8, 2024, titled "Regional Food System Strategy Update – Scope of Work and Engagement (Phase 2)".

EXECUTIVE SUMMARY

Since endorsing its first *Regional Food System Strategy* (RFSS) in 2011, Metro Vancouver and its member jurisdictions have collectively worked to support a sustainable, resilient and healthy food system. These efforts focused on continuing to protect agricultural land and food production and increase local food security in the face of advancing climate stability, changing socio-economic circumstances, and regional development pressures. During preparation of the *Climate 2050 Agriculture Roadmap*, endorsed by the MVRD Board in 2023, an update to the *Regional Food System Strategy* was identified in order to address on going policy gaps including:

- impact of global emergencies and on-going climate change;
- high reliance on imported food;
- social equity, reconciliation, high cost of food; and
- wasted food and food circularity.

The update to the RFSS, identified in the *Board Strategic Plan (2022 – 2026)* as a priority action, is intended to connect with all segments and sectors of the region's food system, understand the issues, challenges and successes each sector has experienced over the past 13 years, develop a shared vision and goals, and establish actions and a strategic direction to move forward.

This report presents the project scope of work including policy context, objectives, and engagement plan and timelines to the Regional Planning Committee for information.

PURPOSE

To provide the Regional Planning Committee with the scope of work and engagement plan for the update to the *Regional Food System Strategy*.

BACKGROUND

The update to the *Regional Food System Strategy* (Reference 1) supports the MVRD Board vision of embracing a livable and resilient region by contributing to protecting the environment, building economic prosperity, and taking climate action through collaboration, innovation and providing sustainable regional services. Both the *Board Strategic Plan (2022-2026)* (Reference 2) and *Climate 2050 Agriculture Roadmap* (Reference 3) identify updating the RFSS as a priority action item. To further support this project, a full list of all relevant policies identified in the *Board Strategic Plan*

(2022 – 2026), the *Climate 2050 Agriculture Roadmap*, and *Metro 2050* (Reference 4) is provided in Attachment 1. The project is also a 2024 Work Plan item for the Regional Planning Committee.

REGIONAL FOOD SYSTEMS – METRO VANCOUVER'S POLICY CONTEXT

In 2008, the MVRD Board approved the Metro Vancouver Sustainability Framework, which identified preparing a food system strategy as a priority action. Metro Vancouver, with input and direction from the Agricultural Advisory Committee, collaborated with various government agencies, educational institutions, private businesses and community organizations to prepare the first RFSS for the region, which was endorsed by the MVRD Board in 2011. With direct input from member jurisdictions, the MVRD Board also endorsed the *Regional Food System Action Plan* in 2016, intended to act as a reference guide for local government and summarize the collective, regional work still required to support the RFSS vision of a sustainable, resilient and healthy food system (Reference 5).

The RFSS was prepared to help guide Metro Vancouver's roles and actionable priorities and to support four main desired outcomes, including:

- increase actively farmed land;
- improve regional food security;
- reduce energy use in the food system; and
- promote community and regional economic development.

Complete Food System

The RFSS was also intended to support a long-term and resilient food production and distribution system in the face of peak oil, advancing climate stability, changing socio-economic circumstances and regional development pressures.

A complete food system, as defined in Metro Vancouver's RFSS and illustrated in Figure 1, encapsulates all the processes involved in keeping humans fed including:

- growing and harvesting food,
- processing, packaging, transporting and distributing food products,
- preparing and marketing food, and, most meaningfully, and
- consuming food.

Food systems also include the management of food and packaging waste, and recovering the nutrients that are discarded when unused food and food scraps are discarded.

Other Related Projects

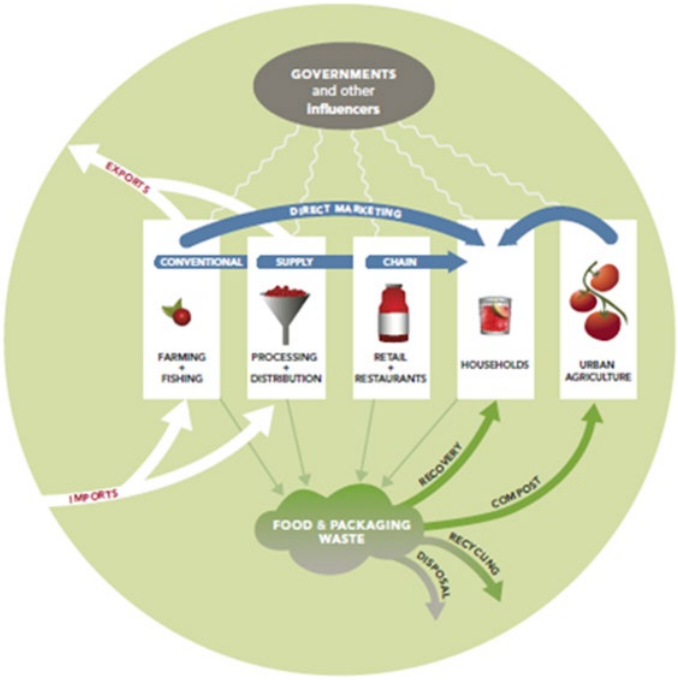
Since 2011, Metro Vancouver has advanced projects that align and support the RFSS (Attachment 2). During the preparation of the *Climate 2050 Agriculture Roadmap*, endorsed by the MVRD Board in 2023, several policy gaps were identified as needing to be addressed that were more appropriate to include in an update to the RFSS including:

- impact of global emergencies;
- high reliance on imported food;
- climate change impacts on agricultural sector;
- social equity and reconciliation;

- food waste and food circularity;
- inflation and high cost of food; and
- overall food system resilience.

These issues, as well as those identified during the proposed engagement process, will help inform the update to the RFSS.

Figure 1: A Complete Food System



REGIONAL POLICY CONTEXT

Metro Vancouver's policies that support a healthy regional food system are reflected and bolstered by plans, strategies, and projects at the local level (Attachment 3). While member jurisdictions often look to Metro Vancouver to support their local and community-based food system work, many member jurisdictions are also leading the way with their own food system plans, strategies and projects. This work will add important considerations to the update of the RFSS by providing the opportunity for Metro Vancouver to align its policies and programs with some of the innovative work already underway at the local level.

PROJECT OBJECTIVES

Metro Vancouver's regional food system is a complex, dynamic, multi-jurisdictional, multi-sector economic and societal function that is regularly impacted by local, regional, provincial, national and international regulations, decision making and events. Metro Vancouver plays a pivotal role in supporting the function of this region's complete food system and its regional-level challenges by providing a forum for collaboration and creating opportunities for dialogue and engagement as a bridge between and across multiple sectors.

Metro Vancouver's work also helps to increase the capacity of member jurisdictions and creates a venue where the multiple sectors comprising the local food system can convene to discuss complex topics. Metro Vancouver is also a direct supplier of drinking water and manages solid waste, which are two significant components to a functioning and healthy food system. These roles are therefore reflected in the overall objectives of this project.

The update to the RFSS seeks to:

1. Connect with all segments and sectors of the region's food system, including member jurisdictions, local First Nations, agricultural producers, food processors, academic institutions, health authorities, food industry associations, and social service and faith-based food-focused agencies;
2. Through a variety of mechanisms, understand the issues, challenges and successes each food system sector has experienced since the first RFSS was completed in 2011.
3. Develop a shared vision;
4. Develop shared goals and actions;
5. Obtain public feedback on issues and actions; and
6. Create a strategic direction for moving forward with action implementation.

PROPOSED PROCESS AND ENGAGEMENT

The project has been separated into three phases, each including multiple tasks.

Phase 1: Background Preparation (Completed)

Before an update to the RFSS could be considered, a considerable amount of background and organizational work was needed. This work, detailed in the staff report dated August 15, 2023, titled "Regional Food System Strategy Update – Scope of Work" (Reference 6), included:

1. Developing an understanding of what other jurisdictions have accomplished since the RFSS was first endorsed;
2. Gaining insights into how the regional food system has evolved over the past several years;
3. Auditing the 2011 RFSS to identify relevant issues still needing to be addressed; and
4. Identifying stakeholders and partners that could be invited to engage in the Strategy update.

Upland Agricultural Consulting was retained by Metro Vancouver to undertake this phase of work, which included the following:

Task 1 - Literature Review (September – October 2023)

- A comprehensive literature review confirmed that food systems operate under a complex and dynamic legislative framework governed by a multitude of policies and regulatory influences that lack cohesion and integration under one governing body;
- Many of the issues identified in the 2011 *Regional Food System Strategy* remain relevant today. Issues needing to be addressed in the update project include: 1) the impact of global emergencies on local food; 2) the increasing social equity barriers to food; 3) food waste and lack of circularity; 4) the impacts of climate change; 5) Indigenous food security; and 6) inflation and the rising costs of food.

Task 2 - Regional Food System Audit (October 2023)

- An audit of actions in the 2011 *Regional Food System Strategy* and the *Regional Food System Action Plan* (2016) was completed.
- Urgent gaps that should be addressed in the Strategy update project were identified as: food system resilience, climate change adaptation, food equity and reconciliation, and food waste.

Task 3 - Engagement Strategy Preparation (November-December 2023)

- A draft engagement strategy for Phase 2 of the project was prepared. This strategy recommends: establishing a technical advisory committee; undertaking subject matter interviews; hosting workshops and presentations; and providing multiple opportunities for partners and stakeholders to adequately communicate and discuss their respective food system challenges in a joint forum.
- This draft engagement strategy was used to prepare the project engagement plan provided in this report.

Task 4 - Stakeholder and Partner Identification (December 2023)

- A list of possible food system stakeholders, representatives and partners that may be interested in participating was prepared.
- An information-sharing and decision-making structure to manage the engagement process was also recommended.

Phase 2: Engagement (Current)

The current phase of work to update the RFSS will involve engaging with a variety of key partners and stakeholders, including gathering input from member jurisdictions, First Nations communities, the general public, and key stakeholders representing various sectors of the region's food system. This phase of work is proposed to follow the general structure detailed below:

Step 1 - Launch Project (February – April 2024)

- Invite local First Nations to participate in the project, including hosting a learning circle dialogue;
- Retain an engagement consultant;
- Create and convene a Project Advisory Committee;
- Finalize and initiate a communications strategy, launch the project website; and
- Launch project internally and to member jurisdictions via advisory committee presentations.

Step 2 - 'Confirm and Gather' Engagement (April - July 2024)

- Launch project to targeted sector groups and the general public
  - > Coordinate with Existing Metro Vancouver Campaigns (e.g., Love Food Hate Waste, Solid Waste Management Plan Update);
- Host in-person and virtual engagement events with the following subject matter experts: agricultural producers; food processors; food waste; urban agriculture; community food security; public health; food distribution; emergency management; transportation and logistics; land use; economic development; local First Nations; and member jurisdiction, Provincial and Federal government staff;
- Member jurisdiction presentations
  - > Local Agricultural Advisory Committees and other identified relevant food system-focused committees

Step 3 - 'Brainstorm and Solve' Engagement (September – December 2024)

- Organize 'Confirm and Gather' engagement results
- Prepare updated vision, goals, actions
- Host 'All Sector' food system forum

Phase 3: Document Preparation (Next Steps)

The future phase of work will involve compiling all the content gathered during the engagement stage and using it to update the Regional Food System Strategy. This phase of work is proposed to follow the general structure detailed below:

Step 1 – Prepare Draft (January – March 2025)

- Organize and evaluate all engagement content
- Update Strategy content
- Prepare updated Draft RFSS
- Run final review and edit phase of Draft RFSS

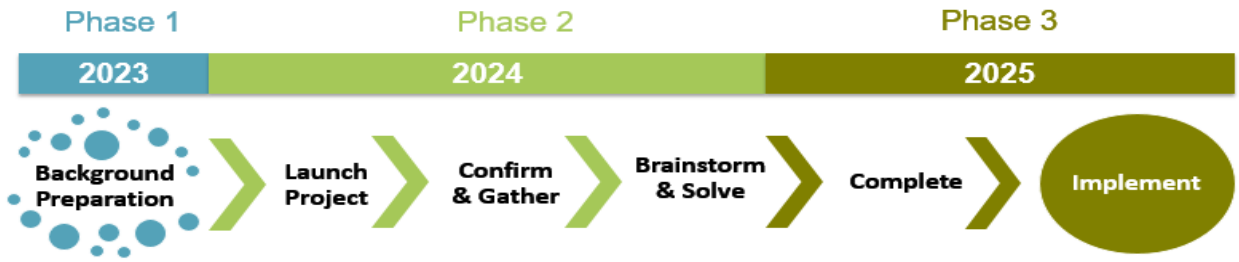
Step 2 – Complete Project (April – May 2025)

- Present final draft to Agricultural Advisory Committee, Regional Planning Committee, member jurisdictions and advisory committees

TIMELINE

Figure 2 provides an overview of the RFSS update timeline, illustrating the main phases, tasks and expected timelines for the project. Given the complex nature of food systems and the extensive list of partners and stakeholders that may wish to be involved in the project, overall timelines may be adjusted to accommodate engagement, particularly at the request of local First Nations.

Figure 2 – Project Timeline



ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The Board-approved 2024 Regional Planning budget includes $60,000 for the *Regional Food System Strategy* update project. These funds are intended to support retaining a consultant to manage a majority of the engagement activities in 2024. It is anticipated that additional budget may be required to support First Nations' participation and complete the project in 2025.

CONCLUSION

The need to update Metro Vancouver's *Regional Food System Strategy* has been identified in the *Board Strategic Plan 2022 – 2026* and *Climate 2050 Agriculture Roadmap.* This update will build on the strengths of the existing RFSS completed in 2011, engage with a many partners and stakeholders, including member jurisdictions and local First Nations, and focus on identifying common issues, actions and implementation solutions to continue to support a healthy, sustainable food system. Given the complex nature of food systems, Regional Planning staff will be coordinating and collaborating across all Metro Vancouver departments, including: Indigenous Relations, Solid Waste Services, Invest Vancouver, Water Services, Liquid Waste Services, and Regional Parks and Environment.

ATTACHMENTS

1. Regional Food Systems – Metro Vancouver's Policy Context
2. Metro Vancouver Regional Food System Related Projects
3. Regional Food Systems – Local Policy Context

REFERENCES

1. Regional Food System Strategy (2011)
2. Metro Vancouver Board Strategic Plan 2022 – 2026
3. Climate 2050 Agriculture Roadmap
4. Metro 2050
5. Regional Food System Action Plan (2016)
6. Regional Planning Committee Report dated August 15, 2023 titled "Regional Food System Strategy Update – Scope of Work"

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Regional Food Systems - Metro Vancouver's Policy Context

The following Metro Vancouver policies support the regional food system:

- Metro Vancouver Board Strategic Plan 2022-2026
  - *Overall Strategic Actions*
    - > Facilitate collaboration with member jurisdictions to create efficiencies and improve alignment between local government policies and actions with those of Metro Vancouver.
    - > Advance initiatives aligned with a transformation to a circular economy.
    - > Prioritize climate action (greenhouse gas reduction and resilience to impacts) in all services, projects, and initiatives.
    - > Enhance understanding of Indigenous knowledge to help inform policies and goals on ecosystem preservation and adaptation measures.
  - *Water Services*
    - > Integrate climate change mitigation and adaptation measures within water utility operations to reduce greenhouse gases and respond to the effects of the changing climate.
    - > Enhance public understanding of the water system and appreciation of drinking water as a precious resource through education, communication, and engagement.
    - > Work collaboratively with members to reduce peak day and annual per-capita water demand.
  - *Liquid Waste Services*
    - > Work with First Nations and senior levels of government on collaborative environmental management initiatives.
    - > Enhance the role of new source controls and incentives to prevent the release of contaminants into the liquid waste system, while collaborating with members, partner organizations, and product producers.
    - > Expand public awareness of the contribution of liquid waste management to human and environmental health.
  - *Solid Waste Services*
    - > Work with members, the provincial government, and the Federal Government on strategies to reduce single-use items and other disposable consumer products.
    - > Continue to develop programs and related communication campaigns that increase diversion rates of materials that can be reused, repurposed, or recycled.
    - > Work with the private sector to innovate in the provision of recycling solutions, including micro-solutions.
    - > Assess Metro Vancouver's role in processing organics and wood.
    - > Identify future disposal alternatives and develop analysis for each, providing life cycle and full cost analysis, including GHG emission estimates.
    - > Leverage the National Zero Waste Council and the Zero Waste Conference to promote the importance of waste prevention and the value of transitioning to a circular economy.

  - Facilitate cross-sector collaboration to design waste out of products and packaging, and to harmonize policies across Canadian jurisdictions that will both reduce waste and create opportunities of scale in remanufacturing opportunities.
- *Regional Parks*
  - Manage built and natural assets proactively as part of an asset management system to support the provision of safe and well-maintained infrastructure and integrity of ecosystems.
- *Regional Planning*
  - Work closely with member jurisdictions, TransLink, First Nations, the Province, and other regional agencies and organizations to advance *Metro 2050*'s goals, strategies, and policy actions.
  - Undertake innovative research that supports the overarching goals in *Metro 2050*, including projects such as: Regional Parking Strategy, Housing and Transportation Cost Burden Study Update, Regional Food System Strategy Update, and Growth Management and Investment Model.
  - Work with members to protect industrial and employment lands that support economic activities contributing to regional prosperity.
- *Air Quality and Climate Action*
  - Accelerate emission reductions from all types of vehicles through policies and regulations working in collaboration with regional partners.
  - Promote transition to clean, renewable energy at the regional and corporate levels in collaboration with energy utilities and other partners.
  - Continue to develop policies and processes to integrate social equity into all air quality and climate policies.
  - Continue partnering with and advocating to other governments and agencies to implement initiatives that accelerate GHG emission reductions in priority areas, including: large-scale electrification; regulating health-harming emissions from regionally significant sources; fuel decarbonization in transportation; and incentives and equity-oriented programs to support purchase of low- and zero-carbon technologies by residents and businesses.
- *Metro Vancouver Housing*
  - Support healthy and engaged communities in Metro Vancouver Housing's sites.
  - Enhance tenant programs that build community and foster tenant well-being, with a focus on joy-based healing, investment in social capital, and poverty alleviation.
- *Invest Vancouver*
  - Provide regional leadership in economic development and investment promotion to enhance regional competitive advantages, complementing and amplifying the local work of member jurisdictions.
  - Promote strategic investment opportunities in key industries to global investors through presence and profile at events and initiatives within the region and key markets.
  - Use an evidence-based approach to advocate to decision-makers to increase economic resilience and fortify the regional economy by identifying strengths, addressing barriers, and advancing opportunities.
  - Engage Indigenous Peoples to advance economic reconciliation and Indigenous prosperity through regional economic development opportunities and partnerships.

> Continue to identify opportunities and align resource efforts across levels of government to maximize impact for the region.

Metro 2050

Metro Vancouver will:

- *Policy Action 1.3.3* - Collaborate with health authorities, academic institutions, First Nations, and other researchers to share best practices, research, data, and tools that can advance land use policies to:
  b) meet community social needs and priorities.
- *Policy Action 1.3.4* – Measure and monitor access to community services and amenities, particularly in Urban Centres and Frequent Transit Development Areas.
- *Policy Action 1.3.5* – Advocate to the Federal Government and the Province to ensure that growing communities are served appropriately and in a timely manner with social amenities, health, schools, and educational opportunities, to avoid inequities in service levels between communities in the region.
- *Policy Action 1.4.2* – Accept RCS's that protect lands with a Rural regional land use designation from urban development and that meet or work towards Action 1.4.3.
- *Policy Action 2.1.1* – Provide regional utility infrastructure to support the region's economic functions and to support efficient employment and settlement patterns.
- *Policy Action 2.1.2* – Work with the Federal Government, the Province, member jurisdictions, First Nations, and the private sector to advance shared economic prosperity and resilience through Invest Vancouver to attract strategic investment to the region.
- *Policy Action 2.1.4* – Collaborate with the Fraser Valley and Squamish-Lillooet Regional Districts on shared initiatives related to economy, transportation, and other related matters.
- *Policy Action 2.1.7* – Advocate that airport authorities:
  b) expedite the transition to energy efficient, low, and zero emission modes for goods movement.
- *Policy Action 2.1.8* – Advocate that the Port of Vancouver:
  b) expedite the transition to energy efficient, low, and zero emission modes for goods movement.
- *Policy Action 2.1.9* – Advocate that the Federal Government and the Province support existing and new industries in the region through such means as investment, procurement strategies, tax incentives, skill development, and small business loan programs.
- *Policy Action 2.2.6* – Advocate to the Federal Government and the Province to coordinate transportation infrastructure and service investments that support efficient movement of goods and people for industrial and employment operations, and considers the Regional Goods Movement Strategy and the Regional Truck Route Network.
- *Policy Action 2.2.7* – Advocate to the Federal Government and the Province to support initiatives and infrastructure investments that:
  a) introduce more energy efficient, low carbon and zero emissions equipment operations and vehicles.

c) expedite the transition to energy efficient, low and zero emission mode for goods movement.

- *Policy Action 2.3.5* – Undertake agriculture awareness activities that promote the importance of the agricultural industry, the protection of agricultural land, and the value of local agricultural products and experiences, in partnership with other agencies and organizations.
- *Policy Action 2.3.9* – Advocate to the Province to increase agricultural producers' knowledge and adoption of innovative practices for advancing agriculture economic development, and resilience to climate change and natural hazard impacts, such as those identified in the regional growth strategy (Table 5).
- *Policy Action 2.3.10* – Advocate to the Province to provide incentives to encourage land management practices that reduce greenhouse gas emissions, improve soil health, protect natural assets, and maintain ecosystem services from agricultural land.
- *Policy Action 2.2.11* – Advocate to the Province for changes to the *Local Government Act* to require that Official Community Plans prioritize the need for agricultural land, similar to how long-term needs are considered for residential, commercial and industrial lands.
- *Policy Action 3.2.2* – Implement the Metro Vancouver Ecological Health Framework, including relevant actions to:

  b) incorporate natural assets and ecosystem services into Metro Vancouver's corporate planning, asset management systems and investments, and provide regionally appropriate guidance on methodologies, tools, and decision-making frameworks.
- *Policy Action 3.2.3* – Manage Metro Vancouver assets and collaborate with member jurisdictions, First Nations, and other agencies to:

  c) identify a regional green infrastructure network that connects ecosystems and builds on existing local networks, while maximizing resilience, biodiversity, and human health benefits.

  d) prepare Implementation Guidelines to support a regional green infrastructure network to assist with the protection, enhancement, and restoration of ecosystems.
- *Policy Action 3.2.4* – Work with local First Nations to:

  c) seek other Indigenous stewardship, research, and co-management opportunities.
- *Policy Action 3.2.6* – Advocate to the Federal Government and the Province to:

  c) update and consolidate provincial invasive species legislation to better support the management of high-risk invasive species.
- *Policy Action 3.3.2* – Work with the Federal Government, the Province, TransLink, member jurisdictions, energy utilities, the private sector, and other stakeholders, as appropriate, to:

  a) monitor energy consumption, greenhouse gas emissions, and air quality related to land use, buildings, agriculture, waste, transportation, and other emission sources, and consider lifecycle energy and emissions.
- *Policy Action 3.4.2* – Work with the Integrated Partnership for Regional Emergency Management, the Federal Government, the Province, First Nations, TransLink, member jurisdictions, adjacent regional districts, and other stakeholders, as appropriate to:

  e) support regional flood management approaches, such as the implementation of the Lower Mainland Flood Management Strategy.

- *Policy Action 5.1.8* – Advocate to the Federal Government and the Province, in collaboration with TransLink and member jurisdictions, to evaluate and develop measures to mitigate the potential negative impacts on the region's Industrial, Agricultural, and Conservation Recreation lands when planning transportation infrastructure, including roadways, railways, and rapid transit systems.
- *Policy Action 5.2.1* – Support implementation of the Regional Goods Movement Strategy and continue to participate in the Greater Vancouver Urban Freight Council.
- *Policy Action 5.2.5* – Advocate to the Federal Government and the Province to support the safe, reliable, and efficient movement of vehicles for passengers, goods, and services through:

  d) local government funding programs for survey instruments to obtain timely and comprehensive data on the travel patterns of residents, workers, and goods and service vehicles travelling inter- and intra-regionally.

Member jurisdictions will:

- *Policy Action 1.3.7* Adopt Regional Context Statements that:

  e) support the inclusion of community gardens (at-grade, rooftop, or on balconies), grocery stores and farmer's markets to support food security, and local production, distribution and consumption of healthy food, in particular where they are easily accessible to housing and transit services

  h) consider where appropriate, opportunities to incorporate recognition of Indigenous and other cultures into the planning of Urban Centres, FTDAs, and other local centres.
- *Policy Action 1.4.3* Adopt Regional Context Statements that:

  b) limit development to a scale, form and density consistent with the intent for Rural land use designation, and that is compatible with on-site sewer servicing.

  d) prioritize and support agricultural uses within the ALR, and where appropriate, support agricultural uses outside of the ALR.
- *Policy Action 2.3.12* – Adopt Regional Context Statements that:

  b) consider policies and programs that increase markets and the distribution of local food in urban areas to strengthen the viability of agriculture and increase availability of local food for all residents;

  c) include policies that protect the supply of agricultural land and strengthen agriculture viability including those that:

  i) assign appropriate land use designations to protect agricultural land for future generations and discourage land uses on Agricultural lands that do not directly support and strengthen agricultural viability.

  iii) support climate change adaptation.

  v) demonstrate support for economic development opportunities for agricultural operations that are farm related uses, benefit from close proximity to farms, enhance primary agricultural production as defined by the Agricultural Land Commission in partnership with other agencies and organizations.
- *Policy Action 2.3.13* In partnership with other agencies and organizations, support agricultural awareness and promote the importance of the agricultural industry, the

importance of protecting agricultural land, and the value of local agricultural products and experiences.

- *Policy Action 3.2.7* – Adopt Regional Context Statements that:
  b) iv) indicate how the interface between ecosystems and other land uses will be managed to maintain ecological integrity using edge planning, and measures such as physical buffers, or development permit requirements.
- *Policy Action 3.4.6* – Incorporate climate change and natural hazard risk assessments into planning and location decisions for new municipal utilities, assets, operations, and community services.
- *Policy Action 3.4.7* – Integrate emergency management, utility planning, and climate change adaptation principles when preparing land use plans, transportation plans, and growth management plans.
- *Policy Action 4.1.8* – Adopt Regional Context Statements that:
  c) identify policies and actions that contribute to the following outcomes:
  vi) increased social connectedness in multi-unit housing.
- *Policy Action 5.2.6* – Adopt Regional Context Statements that:
  a) identify routes on a map for the safe and efficient movement of goods and service vehicles to, from and within Urban Centres; Frequent Transit Development Areas: Major Transit Growth Corridors; Industrial; Employment; and Agricultural lands; ports, airports; and international border crossings.
  b) identify land use and related policies and actions that support the optimization and safety of goods movement via roads, highways, railways, aviation, short sea shipping, and active transportation.
  d) identify policies and actions that support the protection of rail rights-of-way, truck routes, and access points to navigable waterways in order to preserve the potential for goods movement.

- Climate 2050 Agriculture Roadmap
  - *Regional Food System Strategy Breakout Box:*
    Since [the preparation of the first Regional Food System Strategy] the Metro Vancouver region has experienced a significant amount of change including:
    > A considerable increase in region-wide urban growth placing unprecedented pressure on agricultural lands to accommodate non-farm uses, urban transportation overflow, and space for recreational uses;
    > An increase in food insecurity among vulnerable populations as well as new demographic sectors as a result of a global pandemic, military conflicts, and inflation;
    > A change to local weather patterns such as heat domes and extended droughts resulting in crop damage and food unavailability. These changes place substantial pressures on the regional food system increasing food insecurity for all residents.
    > These issues, as well as a gap in the acknowledgement and strengthening of Indigenous food sovereignty, will need to be examined within the broader framework and context of the complete regional food system. To accomplish that effectively, the Regional Food System Strategy will require an audit to determine if its policies are still relevant and are broad enough to address the identified gaps. Of

particular note, the following items should also be explored from a food system point of view:

- Examine the Milan Urban Food Policy Pact to determine what regional monitoring frameworks can be implemented to evaluate gaps in policy and resource mobilization and reveal overall food system improvements;
- Examine the entire food system chain from a regional level to determine where emissions can be reduced and what efficiencies can be achieved;
- Examine the Food and Agriculture Organization of the UN to determine what sustainability indicators can be applied regionally to Metro Vancouver;
- Work with First Nations, the BC Government and the Indigenous Advisory Council on Agriculture and Food, to identify opportunities to strengthen Indigenous food systems and increase Indigenous participation in the agriculture and food sectors;
- Examine how the local agriculture community can diversify, including: new, more resilient crop species; appropriate locations for crops based on soil type and hazard vulnerabilities (e.g., coastal flooding); and new adaptive agricultural management and production models;
- Establish inter-municipal learning opportunities for staff, administration and council to learn from each other, and understand how municipal interests and activities intersect with food systems planning and decision-making;
- Determine the content for a step-by-step instructional toolkit to be used by new or young farmers interested in starting a farm operation within Metro Vancouver; and
- Address the tension that exists between food safety (e.g., health protection that places restrictions on food processing) and food security (e.g., health promotion that can be disconnected from food safety requirements) activities.

- *Strategy 1: Protect Agricultural Land*
  - > *Action 1.1*: Prepare an Agricultural Land Protection and Viability Strategy to identify how to protect and increase the active production of agricultural land within the region including:
    - Identifying the most feasible and beneficial opportunities for regional, inter-governmental and industry collaboration;
    - Supporting and expanding land matching initiatives; and
    - Increasing long term access to farmland for young and new farmers
  - > *Action 1.5*: Work with member jurisdictions, the BC Government, and industry to incentivize, increase the viability of, and prioritize the use of soil-based agriculture in the region
  - > *Action 1.12*: Work with First Nations, the BC Government, member jurisdictions and the agricultural sector to review how regional policy can recognize and support Indigenous food sovereignty throughout the region.
- *Strategy 2: Support Farmers as Climate Action Leaders*
  - > *Action 2.4*: Update the regional emissions inventory with greenhouse-specific data.
  - > *Action 2.16*: Work with the BC Government, industry, and the agriculture community to develop a pilot study to test the feasibility and logistical requirements for the wide-spread use of zero emission agriculture equipment (e.g., electric tractors).

  - > *Action 2.20*: Support and streamline the operation of anaerobic digestion facilities in the region by developing an emission regulation for anaerobic digestion of agricultural and commercial food waste that is simple and maintains existing permitting processes while also ensuring equivalent protections for regional air quality and human health.
  - > *Action 2.21*: Support and streamline the operation of anaerobic digestion facilities in the region by developing a multi-stakeholder centralized agricultural waste collection facility in the Metro Vancouver region to support meeting the Provincial Agricultural Environment Management Code of Practice and improve the cost-benefit return on running anaerobic digestors for agricultural producers.
  - > *Action 2.24*: Advocate to member jurisdictions and other regional partners to address regional food security, encourage more local food production, and prioritize agricultural practices that reduce emissions or help maintain or sequester carbon.
- *Strategy 3: Support Long-Term Farm Health and Resilience*
  - > *Action 3.3*: Prepare a comprehensive regional high resolution map of ecosystem services locations on agricultural land identifying the highest opportunities for focused stewardship efforts to support the long-term resilience of the agricultural sector. (See also Strategy 3.7)
  - > *Action 3.5*: Estimate the financial value of ecosystem services on agricultural land in the Metro Vancouver region and determine how farmers and land owners can be compensated for setting aside natural areas for the benefit of ecosystem services.
  - > *Action 3.7*: Review and assess options to align with the ongoing work to establish a Regional Green Infrastructure Network to support ecosystem services on agricultural land.
  - > *Action 3.13*: Work with the BC Government, water districts and member jurisdictions to develop a comprehensive analysis of the sub-regional sources of water used by the agricultural sector in Metro Vancouver and the ongoing challenges with accessing that water for agricultural purposes.
  - > *Action 3.14*: Work with the BC Government, water districts and member jurisdictions to provide viable and tangible solutions to ensuring water resources needed by the farming community are provided in a sustainable, consistent, and reliable manner.
  - > *Action 3.15*: Explore innovative sources and new technologies for water reuse (e.g., municipal waste water, agricultural drainage water) and water conservation (e.g., applying mulches to field crops).
  - > *Action 3.17*: Update the agricultural water demand model to incorporate current climate conditions, crop irrigation systems and soil information data to contribute to the discussion of water availability for the agricultural community.
  - > *Action 3.18*: Develop a toolkit on how a circular water economy can be supported within the Metro Vancouver farming community, including new technologies and techniques for water reuse.
  - > *Action 3.20*: Work with member jurisdictions to examine the feasibility and benefits of committing to established reporting frameworks that use measurable targets to determine the effectiveness of adaptation policy for agricultural operations, for example, the:
    - Previous Mexico City Pact; and
    - Milan Urban Food Policy Pact.

- *Strategy 4: Support a Viable, Profitable and Stable Agricultural Sector*
  - > *Action 4.5*: Work with the BC Government, member jurisdictions, industry, First Nations and other regional partners to undertake a review of the Regional Food System Strategy to address:
    - Climate-related food-specific challenges, gaps and opportunities;
    - Local food production vulnerability and longevity within the region;
    - Role of urban agricultural in regional food security;
    - Lack of succession planning and labour shortage and living wage challenges;
    - Indigenous food sovereignty;
    - Impacts of the global COVID-19 pandemic; and
    - Impacts of international conflicts on local agriculture production capacity
  - > *Action 4.6*: Work with the BC government, member jurisdictions, and agricultural producers to support pilot projects that focus on diversifying food production in the region to reduce the reliance on food imports (e.g., local citrus fruit production).
  - > *Action 4.7*: Work with the BC Government and member jurisdictions to develop engaging and approachable educational campaigns aimed on connecting consumers more closely with the realities and challenges of producing food in the Metro Vancouver region, including:
    - How agriculture is affected by climate change;
    - What costs and processes go into producing food (e.g., the farm-to-food cost spectrum);
    - What actions farmers are taking to adapt to significant regional climate issues; and
    - How consumers can be a positive contributor to agricultural resilience through their actions and decision making.
  - > *Action 4.8*: Work with member jurisdictions to develop a coordinated regional signage campaign to raise awareness and showcase the location and benefits of locally-grown crops.
  - > *Action 4.12*: Collaborate with agricultural-focused research and innovation entities (e.g., Agri-Food Innovation Council, Agritech BC, Canadian Food Innovation Network) to advance the use of technological innovations into local agricultural production.

Metro Vancouver Regional Food System Related Projects

The following Metro Vancouver projects, programs, strategies and plans align with the *Regional Food System Strategy*:

- *National Zero Waste Council 2022 – 2025 Strategic Plan*
- Zero Waste Conference
- *Climate 2050 Energy Roadmap*
- *Climate 2050 Nature and Ecosystems Roadmap*
- *Climate 2050 Human Health and Well-being Roadmap* (underway)
- *Climate 2050 Water and Wastewater Infrastructure Roadmap* (underway)
- *Clean Air Plan*
- Metro Vancouver Food Recovery Network
- *Good Gardens, Good Communities – Community Gardening Handbook*
- *Metro Vancouver Housing 10-Year Plan*
- *Regional Parks Plan*
- *Food Flows in Metro Vancouver* (2019)
- Regional Parks Natural Resource Management Framework (2020)
- *Regional Parks Land Acquisition 2050 Strategy*
- *Liquid Waste Management Plan Update* (underway)
- *Solid Waste Management Plan Update* (underway)
- *Drinking Water Management Plan Update* (underway)
- Evaluation of Current and Projected Agricultural Water Demand within Metro Vancouver Region (underway)
- Agricultural Land Use Inventory (2016, 2022) (underway)
- *Alternative Waste Management Practice for Agricultural Vegetative Debris* (2021)
- *10-Year Salmon Enhancement Action Plan* (underway)
- Regional Green Infrastructure Network (underway)
- Agricultural and Industrial Lands Survey (2017)
- Agricultural Land Soil Investigation
- *Agritech Today, Building for Tomorrow: Findings and Actions to Strengthen the Sector in Metro Vancouver Region* (2022)
- Agricultural Emissions Estimator Tool (underway)
- Regional Multi-Hazard Mapping (underway)
- *Climate 2050 Land Use and Urban Form Roadmap* (underway)
- Agricultural Awareness Grants (2008 – 2024)
- *Scoping Ecosystem Services on Agricultural Land in Metro Vancouver* (2023)
- *Metro 2050* Climate Policy Enhancements Project (underway)
- Hazard Risk and Vulnerability Blueprint (underway)
- Industrial Lands Labour Force Survey (underway)
- Industrial Land Economic Impact/Value Study – Update (underway)
- 2020 Regional Industrial Lands Inventory: Technical Report (2021)
- *Regional Industrial Land Strategy* (2020)
- *Social Equity & Regional Growth Study* (2021)
- ALR Landowner Survey (2013)
- *Farm Tax Class Income Threshold Investigation* (2015)
- Love Food Hate Waste Campaign

- Agriculture Water Demand Model (2013)
- *Property Tax Scenario Analysis For Agricultural and Industrial Lands in the Metro Vancouver Region* (2014)
- Sector Profile: Agritech in Metro Vancouver (2022)

Regional Food Systems – Local Policy Context

The following Metro Vancouver member jurisdiction policies, plans, strategies and projects support the regional food system:

- *Richmond Circular City Strategy* (2023)
- *Grown in Pitt Meadows: Agricultural Viability Strategy* (2023)
- *Burnaby Food System Strategy* (2022)
- *Delta Agriculture Plan* (2023)
- *MADE in Delta 2022-2027 Social Action Plan* (2021)
- Tsawwassen First Nation Farm School
- *Parkland in Surrey's ALR: A Comprehensive Plan for Agriculture* (2022)
- *Aldergrove Food System Plan* (2023)
- Port Coquitlam; City of Coquitlam; City of Port Moody; Village of Belcarra; Village of Anmore - *Tri-Cities Food Security Action Plan* (2021)
- *City of Vancouver Local Systems Food Action Plan* (2021)
- District of North Vancouver; City of North Vancouver; District of West Vancouver - *North Shore Community Food Charter* (2013)
- *Township of Langley Social Sustainability Strategy* (2021-2030)
- *Maple Ridge Food Hub Implementation Plan* (2018)
- *Surrey Agriculture Protection and Enhancement Strategy* (2013)
- *Vancouver Zero Waste 2040 Strategic Plan*/Circular Food Innovation Lab (2022-23)
- *Maple Ridge Agriculture Plan* (2009)
- *Township of Langley Food System Study* (2018)
- District of North Vancouver Edible Garden Project
- *Barnston Island Agricultural Viability Study* (2019)
- *What Feeds Us: Vancouver Food Strategy* (2013)
- *Toward a Resilient Food System for Bowen Island – Agrarian Analysis* (2019)
- *Richmond Farming First Strategy* (2021)
- Langley Township *Agricultural Viability Strategy* (2013)

To: Climate Action Committee

From: Peter Marshall, Field Hydrologist, Environmental Management, Water Services

Date: April 30, 2024 Meeting Date: May 9, 2024

Subject: **Climate Impacts on the Water Supply Areas**

At its meeting on April 3, 2024, the Water Committee received the attached report dated March 26, 2024, titled "Climate Impacts on the Water Supply Areas" and passed the recommendation to receive for information. The report is presented here to the Climate Action Committee for its information only.

ATTACHMENT

1. "Climate Impacts on the Water Supply Areas", dated March 5, 2024

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Water Committee

From: Peter Marshall, Field Hydrologist, Environmental Management, Water Services

Date: March 26, 2024 Meeting Date: April 3, 2024

Subject: **Climate Impacts on the Water Supply Areas**

RECOMMENDATION
That the Water Committee receive for information the report dated March 26, 2024, titled "Climate Impacts on the Water Supply Areas".

EXECUTIVE SUMMARY
This report underscores the increasing influence of climate change on local weather, with 2023 emerging as the second warmest year on record since 1936. The combination of warm and dry conditions in the spring and summer caused extreme seasonal drought for the third consecutive year. Dry conditions led to an extreme wildfire season nationally, provincially, and locally.

Looking ahead, this report emphasizes the importance of climate resilience in managing regional water resources. With climate change exerting increasing pressure, proactive measures are essential to ensure the sustainability of water supply systems. Water Services continues to invest in climate monitoring programs and technological innovations to inform water supply decision-making and mitigate environmental impacts from the changing climate.

2024 is shaping up to be a slightly drier year with snow water equivalent (snowpack) levels at 65 per cent of the normal average for this time of year (March 15 data). Metro Vancouver is watching weather conditions closely and will continue to make adjustments to reservoir operations and watering restrictions as conditions warrant.

PURPOSE
This report is intended to provide the Committee with a summary of the annual *Water Supply Areas Climate Report* for 2023. This includes information on weather and climate conditions in the water supply areas, and how these conditions relate to regional climate projections and historical norms.

BACKGROUND
Water Services manages a network of automated hydro-meteorological stations, and conducts annual field sampling programs. This monitoring program provides reliable and timely information on source water quality and quantity, stream flow, and wildfire risk in the water supply areas. This information assists in managing source reservoirs and optimizing water treatment, which helps minimize risks to drinking water quality and quantity. The annual *Water Supply Areas Climate Report* for 2023 summarizes key parameters including air temperature, precipitation, snowpack, and stream flow.

WEATHER AND CLIMATE HIGHLIGHTS

Climate Change Projections

Climate Projections for Metro Vancouver (2016) describes expected changes in temperature, precipitation, and other parameters in Metro Vancouver by 2050 and 2080. All models from these projections show an increase in daytime high and nighttime low temperatures. Warmer temperatures are anticipated to reduce peak spring snowpack levels, which in turn, will reduce late-spring and summer river inflows. For precipitation, the region can expect more intense and frequent rainfall events in the fall and winter months. Longer summer dry spells extending into fall droughts are also more likely in the future. Recent years have given a glimpse of what conditions may consistently be like in the coming decades. Recent observations illustrate how quickly the climate is changing, and how hard it is becoming to predict the severity of weather events based on historical conditions.

2023 Weather Summary

The year 2023 was the second warmest on record since 1936 in Metro Vancouver, closely following 2015. It was also a very dry year, particularly during the spring and summer months. Warm and dry conditions led to extreme seasonal drought and elevated wildfire danger in BC, including the south coast, and Metro Vancouver. The information below provides an overview of key weather patterns and highlights significant deviations from historical norms.

Temperature Trends

Aside from a relatively cool winter and early spring, temperatures in Metro Vancouver were consistently above average. Notably, both May and December stood out with average temperatures exceeding 3^{o}C above normal. One of the hottest days of the year occurred in the middle of May, which is very unusual.

Precipitation Patterns

Annual precipitation levels varied widely across the region, ranging from 70 to 95 per cent of normal. Metro Vancouver experienced well below-normal precipitation between May and December. Only 24 millimeters of precipitation fell between April 25 and June 10. There were several long dry spells this year, including a 33-day dry spell from May 8 to June 10.

Snowpack

Cool conditions were dominant during the winter and early spring. This helped the snowpack grow to a near-normal level by May 1 (99 per cent of historical average). However, hot and dry conditions in May and early June rapidly melted the snowpack, and by June 15, the snowpack in the watersheds was 30 per cent of the historical average. The reservoirs stopped spilling on June 24, which is the date water withdrawals and environmental flow releases from the reservoir exceed the inflow rate and lake starts to drawdown. This was approximately three weeks earlier than the 30-year average.

Drought and Wildfire Risk

The combination of warm and dry conditions led to extreme seasonal drought, amplifying the wildfire risk. The provincial drought level was rated 4 or 5 in the Lower Mainland basin from June 29 until September 28. Elevated fire danger persisted throughout the majority of the summer. The

water supply areas saw high or extreme fire danger rating for 65 days, which is double the 10-year average.

Environmental Flows

The 2023 drought conditions brought increased water temperatures and lower river flows throughout the region. Metro Vancouver is committed to ensuring the environmental flows downstream of our dams support healthy fish populations. As such, staff worked with Fisheries and Oceans Canada and the local First Nations to provide a supplemental pulse flow release in both the lower Capilano and lower Seymour Rivers in August and September respectively. These water releases during the key migration period assisted several hundred returning Coho Salmon navigate challenging stretches of habitat. Overall, 2023 Salmon returns were above average in the region despite the drought conditions.

Comparisons with Previous Years

Despite record-breaking drought and wildfire risk, the region did not face the weather extremes observed in 2021 and 2022. The hottest days were less scorching, and the coldest days were milder. This year's strongest storms paled in comparison to the November 2021 atmospheric river, which caused extensive flood damage in southwest British Columbia.

Current Conditions

Metro Vancouver is currently experiencing a lower-than-average snowpack year. The March 15 snow survey found the snow water equivalent (snowpack) to be 65 percent of the historical average. While it's still too early to tell what impact current conditions will have on the summer water supply, Metro Vancouver is continuing to monitor snow levels and weather patterns in advance of the high-demand season and will continue to adjust operations of its reservoirs and summer watering restrictions based on this information. Metro Vancouver also continues to work with its members to encourage them to proactively take water conservation measures including public education campaigns and robust local enforcement of the summer watering restrictions.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Data collected and used in this report is funded by the Watersheds and Environment program budget as well as through partnerships with other organizations including Environment and Climate Change Canada and BC Hydro. Upgrades to snow monitoring methodologies and technologies have been funded by the GVWD Sustainability Innovation Fund.

CONCLUSION

The annual *Water Supply Areas Climate Report* for 2023 highlights the need for climate resilience in managing Metro Vancouver's water resources. The climate is changing rapidly, making it difficult to predict conditions based on historical conditions alone. By leveraging data-driven insights and embracing innovative technologies, Water Services is poised to navigate the challenges posed by a changing climate, and manage available summer water supply to meet the needs of the region's residents and the fisheries resources downstream of the water supply areas.

ATTACHMENTS

1. "Water Supply Areas Climate Report", dated, January 2024
2. Water Supply Areas Climate Report - Presentation

REFERENCE

1. *Climate Projections for Metro Vancouver* (2016)

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