To: Electoral Area Committee

From: Tom Pearce, Planner, Regional Planning and Housing Services

Date: January 17, 2020  Meeting Date: February 5, 2020

Subject: Electoral Area A Zoning Bylaw Review – Public Consultation Update

RECOMMENDATION
That the Electoral Area Committee receive for information the report dated January 17, 2020, titled “Electoral Area A Zoning Bylaw Review – Public Consultation Update”.

EXECUTIVE SUMMARY
A zoning bylaw review was identified as an action in the Electoral Area A Official Community Plan, adopted in 2018. The MVRD Board approved the scope for the zoning bylaw review in July 2019, and staff and the Electoral Area A Director held two rounds of community meetings in the fall for residents where the zoning bylaw applies. The first round of meetings provided residents with an overview of the zoning bylaw review and a chance to discuss a range of other issues. The second round of meetings focused on discussing potential amendments to zoning regulations with residents. Public input will be used to draft proposed amendments to the zoning bylaw, which will be posted to the Metro Vancouver website in spring for additional public feedback before an amending bylaw is prepared for Committee and Board consideration.

PURPOSE
The purpose of this report is to update the Electoral Area Committee on the public consultation undertaken to date as part of the review of the Electoral Area A Zoning Bylaw.

BACKGROUND
In 2018, Metro Vancouver adopted an Official Community Plan (OCP) for rural portions of Electoral Area A (covering approximately 500 properties; excluding UBC, UEL, Passage and Bowyer Islands). An OCP contains land use map designations and policies that together set out the long term vision for communities. The OCP provides guidance to the public, developers, Metro Vancouver staff, other orders of government, and elected representatives when considering land use changes, such as proposals for new development. One of the actions identified in the OCP was to conduct a zoning bylaw review. The review was also identified as an action item in the 2019 Electoral Area Committee work plan. At the July 26, 2019 MVRD Board meeting, the following resolution was passed:

That the MVRD Board approve the scope of the proposed Electoral Area A Zoning Bylaw Review and authorize staff to proceed with the engagement process as presented in the report titled “Electoral Area A Zoning Bylaw Review – Scope of Work and Engagement Process”, dated June 17, 2019.

Two rounds of public consultation took place in fall 2019, and are summarized in this report.
PUBLIC CONSULTATION

The engagement process for the zoning bylaw review includes meetings with residents from the distinct communities of Electoral Area A. The Electoral Area A Director and staff held two rounds of community meetings on Barnston Island, in Port Moody for Indian Arm and Pitt Lake residents, and in Howe Sound. At each meeting, staff presented information on the zoning bylaw, sought feedback on issues related to existing regulations, and answered questions.

First Round of Community Meetings

Barnston Island
On September 14, 2019, 14 residents attended the meeting on Barnston Island. In addition to providing input on zoning regulations, residents discussed the on-going challenges with the ferry, maintaining the dike, and derelict buildings. Residents also expressed satisfaction with the level of communication and responsiveness of Regional Parks.

Indian Arm and Pitt Lake
On September 18, 2019, 18 Indian Arm and Pitt Lake residents attended the meeting in Port Moody. In addition to providing input on zoning regulations, Indian Arm residents expressed gratitude for the recent barge clean-up event, and Pitt Lake residents expressed a desire for such an event in their community. Short-term rentals, the lack of cell-signal during emergencies in Indian Arm, the desire for better response from RCMP to cabin break-ins on Pitt Lake, and dock upkeep concerns at Grant Narrows (Pitt Lake) were also brought up.

Howe Sound Mainland
On September 19, 2019, 10 residents of Montizambert Wynd, Ocean Point and Strachan Point met at Lions Bay Village Hall. In addition to providing input on zoning regulations, most of the meeting was devoted to discussing the history of and future potential options around fire protection, which continues to be the top issue for these communities.

Staff received the feedback on zoning regulations to draft potential amendments to the existing zoning regulations and brought those back for discussion at the second round of community meetings in late October 2019.

Second Round of Community Meetings

Barnston Island
On October 19, 2019, approximately 10 residents attended the meeting on Barnston Island. Building on discussions from the first round of consultation, staff discussed draft proposed changes. Discussions on proposed changes included implementation of the recent Agricultural Land Commission regulations regarding second dwellings on agricultural land; simplifying and removing existing site specific setback regulations; and increasing the maximum allowable height of buildings.
Howe Sound Mainland
On October 23, 2019, 10 residents of Montizambert Wynd, Ocean Point and Strachan Point met at Gleneagles Community Centre in West Vancouver. Discussions on proposed changes included removing the split zoning for hooked parcels in the Montizambert Zone, increasing the maximum allowable height buildings, and clarifying and enabling legal accessory suites. In addition, proposed changes include removing the building scheme provisions in the zoning bylaw for Ocean Point simplifying the zoning for the strata townhouses.

Indian Arm and Pitt Lake
On October 24, 2019, approximately 20 Indian Arm and Pitt Lake residents attended the meeting in Port Moody. Discussions on proposed changes included bed and breakfast regulations (and discussion of short-term rentals); setbacks; lot coverage; enabling legal sleeping cabins; and increasing the maximum allowable height of buildings.

Next Steps
The zoning bylaw materials from round 1 and round 2 of public consultation are posted on the Metro Vancouver website. Public input received from both rounds will be used to draft revised proposed amendments to the zoning bylaw that will be posted to the Metro Vancouver website in spring for additional public feedback. Subsequently, an amending bylaw will be brought forward to the Electoral Area Committee and MVRD for consideration.

ALTERNATIVES
As this is an information report, no alternatives are provided.

FINANCIAL IMPLICATIONS
There are no financial implications associated with this report.

CONCLUSION
Following Board direction in July 2019 to review the Electoral Area A Zoning Bylaw, staff undertook two rounds of community meetings in different parts of the Electoral Area public consultation of the Electoral Area A Zoning Bylaw review. Next steps are to use public input received through the consultation to draft revised amendments that will be posted on the Metro Vancouver website in spring for additional public feedback before preparing an amending bylaw for Committee and MVRD Board consideration.
To: Regional Planning Committee

From: Erin Rennie, Senior Planner, Regional Planning and Housing Services

Date: January 8, 2020

Meeting Date: February 7, 2020

Subject: 2016 Walkability Index – Metro 2040 Performance Monitoring

RECOMMENDATION

EXECUTIVE SUMMARY
The 2016 Walkability Index surface is a parcel-level, built environment dataset that uses 2016 data to show the walkability score of neighbourhoods at the postal code scale. Walkability is a Key Summary Measure for Metro 2040 Goal 4. Maps of the 2016 Walkability Index show that the region’s Urban Centres and Frequent Transit Development Areas are among the most walkable areas in the region, demonstrating good alignment between the Metro 2040 vision and urban development in practice on the ground.

The key takeaway from this work is that there are multiple factors that contribute to making an area more walkable including:

- sidewalk completeness,
- intersection density,
- residential density,
- commercial density, and
- land use mix.

Improving walkability has many benefits including better health outcomes for residents, improved access to local destinations, improved sense of community and safety, and reduced dependence on private vehicles which in turn supports the region’s GHG reduction targets.

PURPOSE
The purpose of this report is to update the Regional Planning Committee on the 2016 Walkability Index and the Walkability page on the Metro 2040 Dashboard.

BACKGROUND
Since 2016, Metro Vancouver has been working in partnership with TransLink and UBC’s Health and Community Design Lab to develop a walkability index dataset for 2016, measuring the walkability of every community in Metro Vancouver. At its September 28, 2018 meeting Metro Vancouver Regional District Board received a report titled “Walkability Surface and Health and Economic Benefits Study Update” (Reference 1) which provided an interim update on the status of the project. The project is
now complete, and maps of the walkability index have been uploaded to the Metro 2040 Performance Monitoring Dashboard on the Metro Vancouver website (Reference 2).

**WALKABILITY INDEX**

**Methodology**
The 2016 Walkability Index was developed by the Health and Community Design Lab under the direction of Dr. Lawrence Frank. This type of dataset has been widely validated and shown to predict physical activity, obesity, and health outcomes and is the most frequently applied index of its kind within the academic literature.

The walkability index surface for Metro Vancouver is based on parcel-level land use data aggregated to the postal code scale using a 1-kilometre and a 400 metre road network buffer. The walkability index score assigned to each postal code is derived by combining a number of physical characteristics (input variables) of the urban environment that have been shown to support walking. These input variables are: net residential density, land use mix, retail floor space ratio (i.e. commercial density), intersection density, and sidewalk presence and completeness.

**Metro 2040 Performance Monitoring**

Walkability was selected as a Key Summary Measure of “Complete Communities and Health” under Goal 4 – Create Complete Communities in the Metro 2040 Performance Monitoring Guideline (Reference 3). The objective of the 2016 Walkability Index is to serve as a data source for monitoring walkability in the region over time to help evaluate progress towards Metro 2040 strategy 4.2 “Develop healthy and complete communities with access to a range of services and amenities.”

The 2016 Walkability Index assigns a score to each postal code derived by summing the normalized values (z-scores) for the five input variables noted above. This allows the data to be used to determine which areas in the region have higher or lower levels of walkability. The data shows that the highest walkability scores are generally clustered in areas within Urban Centres and Frequent Transit Development Areas (FTDAs). This is consistent with the objectives of the policies of Metro 2040 which envision Urban Centres and FTDAs as being complete communities supported by high quality, accessible walking and cycling environments (Metro 2040, p19). Since areas outside the Urban Containment Boundary are not intended to have high levels of walkability, the walkability scores for those areas of the region are not shown on any of the maps in the Metro 2050 Performance Monitoring Dashboard.

Metro Vancouver has access to the 2011 Walkability Index and has uploaded regional maps for both the 2011 and 2016 walkability indices – however these index maps should not be used to evaluate progress over time due to the statistical methods used to develop the index. The five individual input variable scores, however, can be tracked year-over-year and so, for this reason, performance on these measures for both 2011¹ and 2016 will be included in Metro 2040 performance monitoring reporting on the Metro 2040 Dashboard going forward. This will allow users to observe changes in the factors that contribute to walkability over time.

¹ Note: the 2011 Walkability Index did not include the sidewalk connectivity input variable.
WALKABILITY PAGE ON THE METRO 2040 DASHBOARD
Metro Vancouver fulfils its legislative requirement to report out on performance of the regional growth strategy through its online Metro 2040 Performance Monitoring Dashboard. A new dashboard page for Walkability has recently been created under the Complete Communities section, where the Walkability data will be hosted (Reference 3). Maps of the 2016 Walkability Index will be displayed for 1000m buffers, as well as for the five input variables for 2016, and four input variables that are available for 2011.

ACCESSING THE FULL WALKABILITY INDEX
Member jurisdictions may access the full 2016 Walkability Index dataset for internal planning work by contacting Regional Planning staff (subject to a data sharing agreement).

APPLICATION AND NEXT STEPS
The 2020 Regional Planning work plan will include a review of this data to identify and highlight trends. The 2016 Walkability Index may be a potential input into the development of Metro 2050 policies, particularly policies related to Urban Centres and FTDAs, climate change, and complete communities.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
Metro Vancouver contributed $35,000 in 2017 to support the development of the 2016 Walkability Index. This amount was part of the 2017 Board-approved Regional Planning budget.

CONCLUSION
Through Metro Vancouver’s performance monitoring program, walkability has been identified as a Key Summary Measure of Complete Communities and Health, under Goal 4 of Metro 2040. In November 2017, Metro Vancouver and TransLink entered into a partnership with UBC’s Health and Community Design Lab, led by Dr. Lawrence Frank, to develop a walkability index surface for the Metro Vancouver region.

The walkability index surface is a parcel-level, built environment dataset which uses 2016 data to show the walkability score of neighbourhoods at the postal code scale. The project team set out to produce spatial data files that will be used by Metro Vancouver and TransLink for performance monitoring and regional planning activities. Maps of the 2011 and 2016 Walkability Indices are now available on the Metro 2040 Performance Monitoring Dashboard.

Communities can improve walkability by making improvements to sidewalk completeness, intersection density, residential density, commercial density, and land use mix. Improving walkability supports many of the region’s shared objectives including better health, sense of community, safety, reduced reliance on private vehicles, and reducing GHG emissions.
References
1. Regional Planning Committee report titled “Walkability Surface and Health and Economic Benefits Study Update”, dated September 7, 2018, item 5.1
2. Metro 2040 Performance Monitoring Dashboard - Walkability Index Page

36410848
To: Regional Planning Committee

From: Edward Nichol, Senior Policy & Planning Analyst, Regional Planning and Housing Services

Date: January 15, 2020

Meeting Date: February 7, 2020

Subject: Metro 2040 Climate and Natural Hazards Policy Review Scope of Work

RECOMMENDATION

EXECUTIVE SUMMARY
Goal 3 of Metro Vancouver 2040: Shaping our Future (Metro 2040), the regional growth strategy, contains strategies to reduce greenhouse gas (GHG) emissions and to manage risks associated with climate change and other natural hazards. As part of a comprehensive update to Metro 2040, staff are conducting several thematic policy reviews. The purpose of the Climate and Natural Hazards Policy Review is to strengthen climate mitigation, climate adaptation and natural hazard policies throughout the regional growth strategy. The engagement opportunities and deliverables will be shared to support both Metro 2050 (the update to Metro 2040), and Climate 2050. It is anticipated that the Climate and Natural Hazards Policy Review will take approximately 8 months to complete; the Regional Planning Committee will be updated at that time.

PURPOSE
This report provides the Regional Planning Committee with the scope of work for the Metro 2040 Climate and Natural Hazards Policy Review.

BACKGROUND
Metro 2040 is the region’s collective vision for how growth will be managed to support the creation of complete, connected and resilient communities, protect important lands and support the efficient provision of urban infrastructure like transit and utilities. As part of the development of Metro 2050, the comprehensive update to Metro 2040, staff are conducting several thematic policy reviews. As signatories to the regional growth strategy, member jurisdictions will be involved in each of the policy reviews through the Regional Planning Advisory Committee (RPAC) and its subcommittees, the Metro 2050 Intergovernmental Advisory Committee, the Regional Planning Committee and the MVRD Board.

POLICY CONTEXT
Role of Land Use / Growth Management in Regional Climate Change Mitigation and Adaptation
The Metro Vancouver region is growing rapidly. The population is increasing by over 30,000 residents each year and it is anticipated that the regional population could reach 3.7 million people by the year 2050. The location of new homes, businesses and institutions strongly influences both GHG emissions and exposure to risks associated with climate change.
Land use decisions determine where residents live, work and play. Metro Vancouver and its member jurisdictions are working to reduce GHGs by focusing growth in a network of transit-oriented urban centres, and building compact, complete communities that offer amenities close to home. This focused growth has three key climate change benefits: first, it reduces development pressure in areas that naturally store and sequester carbon (such as conservation and recreation areas or agricultural areas); second, it reduces emissions by supporting sustainable transportation options such as walking, cycling and public transit and by reducing the distances people typically have to drive; and third, it tends to encourage multi-family development forms which are, on average, more energy efficient than detached homes.

Where and how the region accommodates growth also determines how much residents, businesses, and infrastructure are exposed to physical risks associated with climate change, such as flood risk from rising seas and rivers. Land use decisions that limit new growth or encourage “managed retreat” can limit the exposure to hazards, as can protecting natural areas that serve to buffer climate change impacts.

**Metro 2040 Policy Context**

*Metro 2040’s Goal 3: Protect the Environment and Respond to Climate Change*, contains strategies to reduce GHG emissions and to manage risks associated with climate change and other natural hazards.

Climate change mitigation and adaptation actions are also included in *Metro 2040’s* other goals. For example, Goal 1: Create a Compact Urban Area and Goal 5: Support Sustainable Transportation Choices are explicitly linked to reducing GHG emissions along with other benefits. While other policies of *Metro 2040* can also be considered significant, they generally do not explicitly identify their climate change-related benefits (see Attachment 1, Figure 3 for an example of how this was communicated in *Metro 2040*). For example, protecting the supply of agricultural land has arguably been the most important means of limiting development in the flood-prone areas of the region and has therefore helped to limit exposure to flood-related risks. There are therefore opportunities to more clearly communicate the relationship between regional growth strategy actions and their associated climate change mitigation and adaptation outcomes as part of the *Metro 2040 Climate and Natural Hazards Policy Review*.

**The Metro 2040 Climate and Natural Hazards Policy Review**

The purpose of the *Metro 2040 Climate and Natural Hazards Policy Review* is to strengthen climate mitigation, climate adaptation and natural hazard policies throughout the regional growth strategy. This work is supported by Metro Vancouver’s *Board Strategic Plan (2019-2022)* which provides direction to “Undertake a comprehensive update to *Metro 2040* to prioritize climate change...”. Since the release of the *Board Strategic Plan (2019-2022)*, Metro Vancouver has adopted a more stringent climate change mitigation target to pursue a carbon neutral region by 2050. This new target is currently the subject of a minor amendment to *Metro 2040* currently under consideration, and if adopted, will become part of *Metro 2050*. 
Relationship to Climate 2050
There is significant alignment between the scope of the Climate 2050 Roadmaps and the scope of the Metro 2040 Climate Change and Natural Hazards Policy Review; the engagement opportunities and deliverables from both processes are be coordinated and shared. This is particularly important for the Climate 2050 Land Use and Growth Management Roadmap, which will focus on the relationship between land use, climate mitigation and climate adaptation, and the Climate 2050 Transportation Roadmap, given the strong linkages between land use and transportation planning.

Through the Climate 2050 work, Metro Vancouver is also in the process of procuring a consultant to support modelling a pathway to achieving new regional GHG reduction targets. This deliverable will be valuable in testing the feasibility of the targets and contextualizing the magnitude of change possible through different policies and could inform the policy directions of Metro 2050.

SCOPE AND TIMELINE
Key assumptions about the scope of the Policy Review include:

- Climate change mitigation, climate change adaptation, and hazards that are driven by climate change will be considered;
- Hazards that are not directly tied to climate change, such as earthquake hazard, will also be considered as part of this process due to interdependencies between different hazards;
- Open discussions about the disconnects between climate change mitigation / adaptation objectives and the growth framework will be undertaken. These may be politically sensitive, for example, when reviewing and discussing maps of potential flood or earthquake scenarios and the inevitable geographic distribution of the resulting negative impacts;
- An exploration of the opportunity to reposition the GHG emissions reduction target and other climate-focused content more prominently in Metro 2050, as climate change is a cross-cutting issue that impacts many other issue areas;
- A close alignment with Climate 2050 and with other policy reviews that are underway, especially the Urban Centres and FTDA Policy Review, Environment Policy Review, Housing Policy Review and Transportation Policy Review. Policies that provide substantive benefits for climate mitigation or adaptation will continue to be addressed through those respective policy reviews;
- While the Policy Review will focus on engagement with RPAC and its associate members, as well as those of the Intergovernmental Advisory Committee, there will be opportunities through the Climate 2050 work for a broader range of municipal staff and other stakeholders to participate in meetings and workshops in early 2020; and
- The Policy Review will identify research gaps and priorities that would support future municipal climate adaptation efforts.

Deliverables will include:

- Reports associated with updating the region’s GHG emissions reduction target in Metro 2040; a Type III Amendment process is already underway;
- A discussion paper focused on climate mitigation, climate adaptation, natural hazards and land use planning. The discussion paper will support the development of both Metro 2050 and the Climate 2050 Land Use and Growth Management Roadmap and will include a high-level review of best practices and policy ideas;
Metro 2040 Climate and Natural Hazards Policy Review Scope of Work
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- A review and summary of results from a GHG emissions reduction modelling exercise being undertaken through Climate 2050;
- A report with recommended policy options; and
- A final report summarizing policies throughout Metro 2050 that will have the most substantive impact on climate mitigation and adaptation objectives. The final report for the policy review will seek input on policy recommendations that will be presented to Regional Planning Committee and the MVRD Board for information, at which point the policy review will be complete. The second half of 2020 will be spent on detailing the specific policy content and wording for this and the other policy reviews, in close collaboration with RPAC and the Intergovernmental Advisory Committee.

It is anticipated that the Climate and Natural Hazards Policy Review will take approximately 8 months to complete. The Metro 2040 Climate and Natural Hazards Policy Review Scope of Work report was provided to the Regional Planning Advisory Committee for information at its meeting on November 22, 2019.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
The 2020 Board approved Regional Planning budget includes $30,000 to support the Metro 2040 Climate and Natural Hazards Policy Review and associated climate mitigation/adaptation work.

CONCLUSION
There is significant and growing interest in reducing GHG emissions and adapting to our changing climate. This interest is reflected in the Metro Vancouver Board Strategic Plan (2019-2022) and a recent Board decision to update the region’s GHG emissions reduction targets. While climate change and natural hazards are already a key component of Metro 2040, the Metro 2040 Climate Change and Natural Hazards Policy Review is intended to strengthen climate mitigation, climate adaptation and natural hazard policies throughout the regional growth strategy, and inform the development of Metro 2050 and the Climate 2050 Roadmaps.

Attachment
Strategies 3.3 and 3.4 of Metro Vancouver 2040: Shaping our Future

References
1. Climate 2050 Strategic Framework
2. Lower Mainland Flood Management Strategy
3. Climate Projections for Metro Vancouver

36426031
GOAL 3
Protect the Environment and Respond to Climate Change Impacts

Metro Vancouver has a spectacular natural environment. Many of Metro Vancouver’s ecosystems have global significance and provide both internationally important fish habitat and key feeding and resting points for migratory birds along the Pacific Flyway. The region’s forests, fields, coastal and intertidal areas, wetlands, and watercourses together are integral pieces of a habitat network for fish and wildlife.

The natural environment is important to livability and sustainability as well as our sense of place. The region’s diverse open space in mountain, coastal and river areas offers recreation and healthy lifestyle opportunities for residents and visitors. The region’s environment also provides essential ecosystem services such as clean drinking water. Protecting these natural features boosts the region’s ecological health and resiliency in the face of climate change and natural hazard risks.

The Conservation and Recreation land use designation is intended to help protect the important environmental and recreation areas throughout the region. Strategies and actions recognize the importance of providing connectivity throughout the region linking important natural features, and emphasize the collaborative effort needed to protect and enhance natural assets.

A strategy in this section also addresses climate change, noting that to a large extent greenhouse gas reductions will be achieved by actions contained throughout the Regional Growth Strategy as well as by actions in other Metro Vancouver management plans. The most significant contributions of the Regional Growth Strategy to climate change mitigation will be made through a continued focus on urban containment and land use patterns that support sustainable transportation and reduce energy use. Policies on climate change adaptation, such as protection for at-risk coastal floodplain areas, are included. The strategy also addresses other natural hazards such as flooding, mudslides, interface fires, and earthquakes.

Strategies to achieve this goal are:

3.1 Protect Conservation and Recreation lands
3.2 Protect and enhance natural features and their connectivity
3.3 Encourage land use and transportation infrastructure that reduce energy consumption and greenhouse gas emissions, and improve air quality
3.4 Encourage land use and transportation infrastructure that improve the ability to withstand climate change impacts and natural hazard risks
STRATEGY 3.3
Encourage land use and transportation infrastructure that reduce energy consumption and greenhouse gas emissions, and improve air quality

Metro Vancouver’s role is to:

3.3.1 Implement the strategies and actions of the Regional Growth Strategy which contribute to regional targets to reduce greenhouse gas emissions by 33 percent below 2007 levels by 2020 and 80 percent below 2007 levels by 2050. Figure 3 identifies examples of strategies and actions contained in the Regional Growth Strategy to address climate change.

3.3.2 Work with the federal government and the province, TransLink, municipalities, non-governmental organizations, and the private sector to:

a) support the ongoing monitoring of energy consumption, greenhouse gas emissions, and air quality related to land use and transportation infrastructure;

b) promote best practices and develop guidelines to support local government actions to reduce energy consumption and greenhouse gases, and improve air quality related to land use and transportation infrastructure (e.g. district heating systems and renewable energy opportunities).

3.3.3 Accept Regional Context Statements that encourage land use and transportation infrastructure that reduce energy consumption and greenhouse gas emissions, and improve air quality, and that meet or work towards Action 3.3.4.

The role of municipalities is to:

3.3.4 Adopt Regional Context Statements which:

a) identify how municipalities will use their land development and transportation strategies to meet their greenhouse gas reduction targets and consider how these targets will contribute to the regional targets;

b) identify policies and/or programs that reduce energy consumption and greenhouse gas emissions, and improve air quality from land use and transportation infrastructure, such as:

- existing building retrofits and construction of new buildings to green performance guidelines or standards, district energy systems, and energy recovery and renewable energy generation technologies, such as solar panels and geothermal systems, and electric vehicle charging infrastructure;

- community design and facility provision that encourages transit, cycling and walking (e.g. direct and safe pedestrian and cycling linkages to the transit system);

c) focus infrastructure and amenity investments in Urban Centres and Frequent Transit Development Areas, and at appropriate locations along TransLink’s Frequent Transit Network;

d) implement land use policies and development control strategies which support integrated storm water management and water conservation objectives.
Actions Requested of Other Governments and Agencies

3.3.5 That TransLink, in collaboration with Metro Vancouver and municipalities, establish criteria for defining major development proposals, which are referenced in the South Coast British Columbia Transportation Authority Act, in order to help meet the objective of concentrating major trip-generating uses in areas well served by transit.

3.3.6 That TransLink pursue reductions of common air contaminants and greenhouse gas emissions from on-road transportation sources in support of regional air quality objectives and greenhouse gas reduction targets.

3.3.7 That TransLink manage its transit fleet and operations with the goal of increasing fuel efficiency and reducing common air contaminants and greenhouse gas emissions over time, in support of the Regional Growth Strategy and Air Quality Management Plan.

3.3.8 That the federal government and the province and their agencies establish further legislative and fiscal actions to help the public and private sectors to maximize reductions in energy consumption and greenhouse gas emissions, and improve air quality, such as:

a) in the building sector,
   - accelerate the modernization of the BC Building Code
   - increase incentives for residential and commercial building retrofits
   - support, where feasible and appropriate, energy recovery, renewable energy generation and district energy systems and related transmission needs

b) in the transportation sector,
   - enable the implementation of regional transportation demand management measures such as transportation user-based pricing
   - increase funding for sustainable transportation infrastructure
   - continue to advance stringent standards for on-road vehicle emissions and fuel carbon content.

FIGURE 3
How Land Use and Transportation Actions Address Climate Change

Note: Figure for reference only, see section 6.13.2
The numbers relate to the applicable strategy in the Regional Growth Strategy

Regional Planning Committee
STRATEGY 3.4
Encourage land use and transportation infrastructure that improve the ability to withstand climate change impacts and natural hazard risks

Metro Vancouver’s role is to:

3.4.1 Incorporate climate change and natural hazard risk assessments into the planning and location of Metro Vancouver utilities, assets and operations.

3.4.2 Work with the federal government and the province, TransLink and municipalities to:

a) consider climate change impacts (e.g. sea level rise) and natural hazard risks (e.g. earthquake, flooding, erosion, subsidence, mudslides, interface fires) when extending utilities and transportation infrastructure that encourages land use development;

b) research and promote best practices in adaptation to climate change as it relates to land use planning.

3.4.3 Accept Regional Context Statements that encourage land use, transportation and utility infrastructure which improve the ability to withstand climate change impacts and natural hazard risks and that meet or work towards Actions 3.4.4 and 3.4.5.

The role of municipalities is to:

3.4.4 Adopt Regional Context Statements that include policies to encourage settlement patterns that minimize risks associated with climate change and natural hazards (e.g. earthquake, flooding, erosion, subsidence, mudslides, interface fires).

3.4.5 Consider incorporating climate change and natural hazard risk assessments into the planning and location of municipal utilities, assets and operations.

Actions Requested of Other Governments and Agencies

3.4.6 That the Integrated Partnership for Regional Emergency Management, in collaboration with the federal government and the province, and other agencies:

a) identify areas that are vulnerable from climate change and natural hazard risks, such as those listed in Actions 3.4.2 and 3.4.4;

b) coordinate priority actions to address the vulnerabilities identified, including implementation and funding strategies.

3.4.7 That the federal government and the province, in collaboration with the Integrated Partnership for Regional Emergency Management and other agencies:

a) provide financial assistance and timely data and information, such as flood hazard mapping, shoreline mapping, hydrological and hydraulic studies, to better enable local governments to fulfill their flood hazard management roles and responsibilities;

b) provide a coordination role to address flood hazard issues and management decisions;

c) implement appropriate preparatory actions to address the implications of long-term sea level rise on infrastructure planning, construction, and operations;

d) review and improve the effectiveness of existing provincial legislation and guidelines regarding flood hazard management by municipalities.
RECOMMENDATION

EXECUTIVE SUMMARY
On October 21, 2019 staff circulated a survey to Regional Planning Advisory Committee (RPAC) members and associates via email and requested feedback on six high level environmental land use policy ideas. Staff received 11 responses expressing general support for consideration of all six policy ideas in the Environment Policy Review. Feedback will guide refinement of these ideas and the development of policy options over the next few months. The Metro 2040 Climate Policy Review will also inform these policy options. Staff will provide the Committee with an update on the Metro 2040 Environment Policy Review mid-2020 and Metro 2050 policy recommendations for its consideration in the third quarter of this year.

PURPOSE
To provide the Regional Planning Committee with a summary of the feedback received on several high-level policy ideas under consideration as part of the Metro 2040 Environment Policy Review.

BACKGROUND
At its meeting on September 13, 2019, the Regional Planning Committee received a report titled “Update on Metro 2040 Environment Policy Review – Forum Results and Policies from Other Jurisdictions” (Reference 1) that summarized the results of an Environmental Land Use Policy Forum involving staff from member jurisdictions, other levels of government, academics, consultants and non-government organizations hosted by Regional Planning on June 6, 2019. Staff analyzed input from Forum participants, developed high level policy ideas for consideration in the Environment Policy Review, and circulated a survey to RPAC members seeking feedback. Staff also encouraged RPAC members to work with their municipal representatives from their respective environment, parks, or sustainability departments who participate on the RPAC-Environment Subcommittee. This report summarizes the input received on the six environmental land use policy ideas under consideration as part of the Metro 2040 Environment Policy Review.

ENVIRONMENTAL LAND USE POLICY IDEAS SURVEY
On October 21, 2019 staff circulated a survey to RPAC members and associates requesting feedback on six environmental land use policy ideas:

1. Capture current and emerging environmental planning priorities
2. Develop a regional vision for ecosystem protection, enhancement and restoration
3. A regional green infrastructure network
4. Improve alignment of the Conservation and Recreation regional land use designation with its intended purpose
5. Integrate the Sensitive Ecosystem Inventory
6. Support equitable access and proximity to green space in urban areas to maximize public health benefits.

Staff received 11 responses from the following organizations – the Cities of Maple Ridge, Pitt Meadows, Delta, Port Moody, Burnaby and New Westminster, the District of North Vancouver, Vancouver Park Board, UBC Campus and Community Planning, Vancouver Coastal Health, and the Agricultural Land Commission.

SUMMARY OF FEEDBACK ON ENVIRONMENTAL LAND USE POLICY IDEAS
Table 1 provides an overview of the policy ideas and comments received.

<table>
<thead>
<tr>
<th>Policy idea</th>
<th>Summary of Comments Submitted</th>
</tr>
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<tbody>
<tr>
<td>1. Capture current and emerging environmental planning priorities</td>
<td>Respondents generally agreed that Metro 2050 should reflect priorities for member jurisdictions, including:</td>
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<tr>
<td></td>
<td>- sensitive ecosystems;</td>
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<td></td>
<td>- ecosystem services (including carbon storage) / natural capital valuation;</td>
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<td>- urban forests;</td>
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<td>- invasive species; and</td>
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<td></td>
<td>- green infrastructure.</td>
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<td></td>
<td>They also confirmed that Metro Vancouver should continue to convene forums for cross-boundary collaboration and information sharing, and provide data and best practices on these priority areas.</td>
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<tr>
<td>2. Develop a regional vision for ecosystem protection, enhancement and restoration.</td>
<td>All respondents agreed that a regional vision would help to strengthen collaboration among member jurisdictions and other partners in protecting and enhancing ecosystems that span jurisdictions. Two respondents suggested that communities may see a regional vision as competing with other priorities or as a constraint on their decision-making independence. It was suggested that a vision must be inclusive, broad, and overarching to work. All respondents felt that the whole region, including urban and natural areas, should be included in a regional vision.</td>
</tr>
<tr>
<td>3. A regional green infrastructure network</td>
<td>All respondents expressed support for a regional green infrastructure network to support climate action plans, enhance climate resiliency (reduce flooding and urban heat</td>
</tr>
<tr>
<td><strong>Policy Ideas</strong></td>
<td><strong>Survey Results</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td>4. Improve alignment of the Conservation and Recreation Regional Land Use Designation with its intended purpose</td>
<td>All respondents agreed that it would be helpful to update the criteria and guidelines for the Conservation and Recreation regional land use designation to improve consistency and ensure that <em>Metro 2040</em> policies are applied to the same land uses across the region.</td>
</tr>
<tr>
<td>5. Integrate the Sensitive Ecosystem Inventory (SEI), a science-based analysis that provides consistent mapping of the region’s most ecologically important areas.</td>
<td>Respondents supported the inclusion of the SEI in <em>Metro 2050</em>. One respondent suggested that the regional vision, a regional green infrastructure network, and the Conservation and Recreation regional land use designation should be informed by the SEI. Respondents did not comment on whether a reference map or connection to an online tool should be included in <em>Metro 2050</em>, but two respondents stated that it would be helpful to add more geographically directed policy actions. Another suggested that Metro Vancouver should consider how the SEI aligns with existing environmental protection Development Permit Areas.</td>
</tr>
<tr>
<td>6. Support equitable access and proximity to green space in urban areas to maximize health benefits</td>
<td>Respondents expressed support for applying a regional lens to the issue of equitable access to green space as it would help with coordination of efforts and resources, and enhance equitable distribution of health and wellbeing across the region, but also achieve co-benefits. Several respondents mentioned that they had already established local decision-making frameworks or standards, while others suggested the need for empirical data, performance targets, guidelines or best management practices, and funding to assist with implementation, evaluation, or monitoring of gains / losses over time.</td>
</tr>
</tbody>
</table>

**NEXT STEPS**
Feedback received from the Environmental Land Use Policy Forum and the RPAC survey will guide the refinement of these ideas and the development of policy options, in collaboration with RPAC and the RPAC-Environment Subcommittee over the coming months. The *Metro 2040* Climate Policy Review will also inform the policy options. Staff will provide the Regional Planning Committee with an update mid-year and *Metro 2050* policy recommendations for their consideration in the third
quarter of 2020. The Climate Action Committee will continue to receive Regional Planning Committee staff reports on *Metro 2040* Environment Policy Review for information.

**ALTERNATIVES**
This is an information report. No alternatives are presented.

**FINANCIAL IMPLICATIONS**
Work on the *Metro 2040* Environmental Land Use Policy Review has been completed within funding allocated by the 2019 and 2020 Regional Planning budgets. There are no other financial implications to this report.

**CONCLUSION**
Input from member jurisdictions, other levels of government, academics, consultants and non-government organizations collected during Regional Planning’s Environmental Land Use Policy Forum in early June 2019 informed the development of six environmental land use policy ideas. On October 21, 2019 staff circulated a survey to RPAC members and associates via email and requested feedback these high level policy ideas:

1. Capture current and emerging environmental planning priorities;
2. Develop a regional vision for ecosystem protection, enhancement and restoration;
3. A regional green infrastructure network;
4. Improve alignment of the Conservation and Recreation regional land use designation with its intended purpose;
5. Integrate the Sensitive Ecosystem Inventory; and
6. Support equitable access and proximity to green space in urban areas to maximize public health benefits.

Staff received responses from 11 RPAC members and associates who expressed general support for all six policy ideas. The feedback received will guide development of policy options over the next few months and the *Metro 2040* Climate Policy Review will also inform these policy options. Staff will provide the Committee with an update on the *Metro 2040* Environment Policy Review mid-2020 and *Metro 2050* policy recommendations for consideration in the third quarter of this year.

**References**
To: Regional Planning Committee

From: Sinisa Vukicevic, Senior Planner, Regional Planning and Housing Services

Date: January 20, 2020

Meeting Date: February 7, 2020

Subject: Updating Metro 2040’s Housing Demand Estimates

RECOMMENDATION
That the Regional Planning Committee receive for information the report titled “Updating Metro 2040’s Housing Demand Estimates”, dated January 20, 2020.

EXECUTIVE SUMMARY
Metro 2040 notes that it is Metro Vancouver’s role to monitor and report the success of municipal Housing Action Plans in achieving the regional housing demand estimates as laid out in the regional growth strategy. Table A.2 of Metro 2040 sets out Housing Demand Estimates to assist Metro Vancouver’s municipalities when preparing Regional Context Statements and Housing Action Plans, and is used to support Metro Vancouver’s regional planning and utility planning functions. Regional Planning staff are undertaking an update to the Housing Demand Estimates and its projection methodology to provide current data to support the update to Metro 2040 and TransLink’s new Regional Transportation Strategy. This project will be finalized and will be presented for the Committee’s consideration by February of 2021.

PURPOSE
To provide the Regional Planning Committee with information on the scope of work for updating the Housing Demand Estimates (HDEs) in Metro Vancouver 2040: Shaping our Future (Metro 2040), the regional growth strategy.

BACKGROUND
Metro 2040 is the region’s collective vision for how growth will be managed to support the creation of complete, connected and resilient communities, protect important lands and support the efficient provision of urban infrastructure like transit and utilities. Metro 2040 identifies that it is Metro Vancouver’s role to monitor and report the success of municipal Housing Action Plans in achieving the regional housing demand estimates as laid out in the regional growth strategy. This report sets out the scope of work for updating the regional growth strategy’s Housing Demand Estimates.

THE NEED FOR UPDATED HOUSING DEMAND ESTIMATES
Table A.2 of Metro 2040 identifies the Housing Demand Estimates for Metro Vancouver’s member jurisdictions, which are included as a reference for members to support local planning and Housing Action Plans, and are also used to support Metro Vancouver’s regional planning and utility planning functions. The HDEs are not targets. The current estimates represent a mid-range / average trend...
projection by tenure based on the existing households in each member jurisdiction. The main reason for undertaking the HDE Update is to provide current data to support the update to Metro 2040 and TransLink’s new Regional Transportation Strategy.

KEY TASKS AND TIMELINE
The methodology used to generate the HDEs will be updated as part of this project, with an aim to be more connected to Regional Planning’s Age-Cohort Model utilized to develop population, housing and employment projections, as well as to new provincial Housing Needs Reports requirements. At its meeting on November 8, 2019, the Regional Planning Committee received a report on the scope of work for updating Metro 2040’s population, dwelling units, and employment projections. The new HDE methodology is intended to have a strong relationship to the planned population and employment projection updates and therefore will be undertaken after that work has been completed. The Regional Planning Advisory Committee provided feedback and supported this approach at its November 22, 2019 meeting.

Housing Demand Estimates will be ‘scenario stationed’; i.e. several scenarios of additional housing demand will be developed over a 10-year horizon. The scenarios will be based on the Cohort-Component Survival Model and will employ different assumptions about future tenure patterns, incomes and household types. A final scenario (i.e. the preferred scenario) will be reported out to the Regional Planning Committee in early 2021 for consideration, and then will form part of Metro 2050.

Metro Vancouver is striking a ‘Housing Demand Estimates Expert Panel’ to support this work. The Panel will comprise housing and data experts from the BC Government, housing, academia, the non-profit housing sectors, and member jurisdictions and will be critical in supporting this project at several key stages including:
- updating the methodology for the Housing Demand Estimates;
- consideration of the scenarios for the discussion and feedback; and
- consideration of the final revised Housing Demand Estimates for discussion and feedback prior to review and approval by RPAC, the RPAC Housing Subcommittee, and the Regional Planning Committee.

It is anticipated that the HDE Update will require considerable technical analysis and collaboration with member jurisdictions over a two-month period in Q4 of 2020.

Engagement
The key stakeholders for the HDE Update are the Expert Panel, member jurisdictions, TransLink and other regional agencies that are expected to participate in the implementation of Metro 2050. Consultation will occur through the Expert Panel, RPAC, RPAC Housing Subcommittee, and the Regional Planning Committee.

Population, Employment and Housing Projections Annual Reports
As part of the HDE Update work, Metro Vancouver staff are proposing that reports on population, employment and housing projections be prepared and published on an annual basis. The reports will provide a regional snapshot on the current housing projections, including HDE data, and will include up-to-date data from Metro Vancouver’s Housing Data Book.
The Annual Reports are being proposed as a way to provide more current data in the 5-year gap between Census periods. The Annual Reports are intended to help municipalities better project local housing needs and assist in developing new housing policies and will:

- include the Census undercounts (where available);
- incorporate estimates of non-permanent residents; and
- provide current housing market research to keep housing estimates revised and up-to-date.

More detail on the Annual Report concept and methodology will be presented to the Regional Planning Committee for consideration and feedback in early 2020.

Project Milestones:
- November 2019: Strike the Expert Panel
- January 2020: Expert Panel to review the updated methodology for Housing Demand Estimates
- March 2020: Regional Planning Committee to review the context and methodology for the new Annual Reports
- October/November 2020: Produce the revised Housing Demand Estimates
- December 2020: Expert Panel to review and assess the scenarios
- January 2021: Consultation with municipalities on the scenarios; Presentation of the final revised Housing Demand Estimates to the RPAC Housing subcommittee and RPAC
- February 2021: Presentation of the final revised Housing Demand Estimates to the Regional Planning Committee and Board.

ALTERNATIVES
As this is an information report, no alternatives are provided.

FINANCIAL IMPACTS
The update to the Housing Demand Estimates will be undertaken as part of the regular work of the Planning Analytics team in Regional Planning, within the 2020 Board-approved Regional Planning budget.

CONCLUSION
Updating Metro 2040’s Housing Demand Estimates intersects with several elements in the regional growth strategy, including transportation, housing, the economy, and the environment. The HDEs in conjunction with population, dwelling units, and employment projections, undertaken with current data, are critical inputs for the regional Water and Liquid Waste utilities demand planning, to TransLink’s transportation demand modelling, and for member jurisdictions when preparing Regional Context Statements and Housing Action Plans.
To: Regional Planning Committee

From: Erin Rennie, Senior Planner, Regional Planning and Housing Services

Date: January 22, 2020

Meeting Date: February 7, 2020

Subject: Results of the Regional Stakeholder Workshop and Transport 2050 Phase 1 Engagement Survey and Key Findings for Metro 2050

RECOMMENDATION
That the Regional Planning Committee receive for information the report titled “Results of the Regional Stakeholder Workshop and Transport 2050 Phase 1 Engagement Survey and Key Findings for Metro 2050” dated January 22, 2020.

EXECUTIVE SUMMARY
Metro Vancouver and TransLink have been working together on engagement activities to support the development of Metro 2050 and Transport 2050. The results of these engagement activities and key findings for the development of Metro 2050 are summarized in this report.

PURPOSE
The purpose of this report is to present the results of the Regional Stakeholder Workshop and Transport 2050 Phase 1 Engagement Survey and the Key Findings for Metro 2050.

BACKGROUND
Metro Vancouver is in the process of updating the current regional growth strategy (Metro 2040) adopted in 2011; the updated document will be called Metro 2050. Concurrently, TransLink is in the process of developing a new Regional Transportation Strategy that will be called Transport 2050. The Metro Vancouver Board Strategic Plan (2019-2022) includes Regional Planning Strategic Direction 1.2 to “Undertake a comprehensive update to Metro 2040 to prioritize climate change, align with the update to the Regional Transportation Strategy, and extend the timeframe to 2050.” This report summarizes the key findings of a joint Regional Stakeholder Workshop and a public engagement survey that was co-developed and hosted by Metro Vancouver and TransLink staff to support the development of the ‘vision and values’ for the two regional plans.

TRANSPORT 2050 AND METRO 2050 ENGAGEMENT
In recognition of the importance of integrating land use and transportation planning at the regional scale, throughout 2019 Metro Vancouver and TransLink staff coordinated the planning and consultation processes and, in particular, partnered on a joint process to develop a regional vision and identify regional values to support the development of Metro 2050 and Transport 2050 respectively. The intention of this close coordination was to align the policy frameworks of the new Regional Transportation Strategy and updated regional growth strategy.
During the spring of 2019 Metro Vancouver and TransLink staff worked together on two joint engagement activities: hosting a Regional Stakeholder Workshop, and the *Transport 2050 Phase 1 Engagement Survey*.

The Regional Stakeholder Workshop was held on June 4, 2019 and was attended by 49 stakeholders representing 43 organizations from around the region. The purpose of the workshop was to foster discussion on the integration of regional transportation, land use, affordable housing, regional growth management, and climate change planning.

The Phase 1 Engagement Survey included 6 questions which were jointly drafted by Metro Vancouver and TransLink staff. Almost 31,700 online surveys were completed. In addition, TransLink commissioned market research firm Insights West to conduct a statistically significant online poll of Metro Vancouverites using the same survey questions to help validate the survey results. The survey and poll results are now available in the *Transport 2050: Phase 1 Report* (Reference 1).

**Results of the Regional Stakeholder Workshop**

When asked about what was important to their organization when looking towards the future, attendees of the workshop emphasized the need for:

- affordable housing, of varied types but with a focus on transit-oriented development, to attract and retain workers to support business and economic development in the region;
- sustainable, accessible, and convenient transit options for the environmental, health, and economic benefits;
- accessible transportation, where accessibility was defined as both for people with different needs and geographically throughout the region for people and goods; and
- increased enforcement capabilities of regional bodies to deliver long-term plans.

When asked about how transportation and growth management planning could better support affordability, access to jobs, equitable communities, and a strong regional economy, attendees suggested:

- continuing to integrate growth and transportation planning through compact communities served by mobility hubs and working with authorities beyond Metro Vancouver’s borders to further these efforts;
- that government authorities acquire lands and develop affordable housing in corridors prior to the land value increases stimulated by introducing transit investments; or, alternatively, that developers be incentivized to focus density close to transit and local authorities be penalized if they do not support higher development densities near new transit investments; and
- manage the emergence of new mobility to avoid an increase in traffic congestion and instead address access and equity issues by emphasizing shared-use mobility.

When asked about how the region can become more resilient to the impacts of climate change and emerging transportation technologies, attendees recommended:

- that the region demonstrate proactive leadership on climate change adaptation and preparation for new mobility technologies;
that regional and local governments restrict development in at-risk areas, begin phased withdrawal from at-risk areas, and increase density in areas with less sea-level rise risk to accommodate growth;

- that new mobility could support climate change mitigation through electrification and shared-use options provided that roadway allocation is reconsidered to accommodate an increasing variety of modes; and

- that the transit system prepare for the anticipated impacts of climate change such as extreme weather.

Results of the Phase 1 Engagement Survey

Survey respondents were asked to think about the Metro Vancouver region over the next 30 years and rank their top priorities, values, and concerns from a range of possible answers. Metro Vancouver’s interest in these survey results is that they will help shape the vision and core values for Metro 2050 and to help inform some of the policy options / amendments that will be considered for Metro 2050. The top three responses to each question from the online survey and the Insights West poll are summarized in Figure 1 below.

Figure 1 – Phase 1 Engagement Survey Results

<table>
<thead>
<tr>
<th>Online Survey</th>
<th>Insights West Poll</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What I like best about living in Metro Vancouver:</strong></td>
<td><strong>What I like best about living in Metro Vancouver:</strong></td>
</tr>
<tr>
<td>1. Natural areas like parks and forests</td>
<td>1. Natural areas like parks and forests</td>
</tr>
<tr>
<td>2. The mild weather</td>
<td>2. The mild weather</td>
</tr>
<tr>
<td>3. Being close to family and friends</td>
<td>3. Being close to family and friends</td>
</tr>
<tr>
<td><strong>I live in my neighbourhood because:</strong></td>
<td><strong>I live in my neighbourhood because:</strong></td>
</tr>
<tr>
<td>1. It’s near transit</td>
<td>1. Close to shops and amenities</td>
</tr>
<tr>
<td>2. Close to shops and amenities</td>
<td>2. More affordable</td>
</tr>
<tr>
<td>3. It’s near family and community</td>
<td>3. Private and quiet, near family and friends and near transit</td>
</tr>
<tr>
<td><strong>When I think about how the region will change and grow over the coming decades, my biggest concerns are:</strong></td>
<td><strong>When I think about how the region will change and grow over the coming decades, my biggest concerns are:</strong></td>
</tr>
<tr>
<td>1. Growing cost of renting or buying a home</td>
<td>1. Growing cost of renting or buying a home</td>
</tr>
<tr>
<td>2. Congestion on the roads</td>
<td>2. Congestion on the roads</td>
</tr>
<tr>
<td>3. Loss of greenspace</td>
<td>3. Effects of climate change</td>
</tr>
<tr>
<td><strong>As the region changes, I’d most like us to prioritize:</strong></td>
<td><strong>As the region changes, I’d most like us to prioritize:</strong></td>
</tr>
<tr>
<td>1. Expand and improve the transit system</td>
<td>1. Increasing housing choice and affordability</td>
</tr>
<tr>
<td>2. Increase housing choice and affordability</td>
<td>2. Expanding and improving the transit system</td>
</tr>
<tr>
<td>3. Create jobs, homes, and services closer together</td>
<td>3. Managing congestion on roads</td>
</tr>
</tbody>
</table>
When I want to get somewhere, what matters the most to me is:
1. Knowing I'll arrive on time
2. How long it takes me to get to my destination
3. How convenient my trip is

When I think about how people will move around in the future, I want our transportation system to be:
1. Efficient – getting everyone where they are going on time
2. Cost effective
3. Environmentally friendly

When I want to get somewhere, what matters the most to me is:
1. How long it takes me to get to my destination
2. How convenient my trip is
3. How much is costs me

When I think about how people will move around in the future, I want our transportation system to be:
1. Efficient – getting everyone where they are going on time
2. Cost effective
3. Safe

KEY FINDINGS TO SUPPORT THE DEVELOPMENT OF METRO 2050

The questions posed during the Regional Stakeholder Workshop and in the Transport 2050 Phase 1 Engagement Survey were drafted to support both the development of Transport 2050 and Metro 2050, but it is recognized that some questions are more pertinent to TransLink’s planning efforts than for Metro Vancouver. Staff have analyzed the results from the two engagement initiatives and have highlighted the following key findings that will support the development of Metro 2050:

1. **Protect and Enhance the Environment:** Residents value parks and natural spaces highly and are very concerned about the loss of greenspace as the region grows. The protection, enhancement, and restoration of natural ecosystems and natural spaces should be a focus for policies in Metro 2050.
2. **Focus Growth in Compact, Complete Communities:** Residents value the convenience of having homes, jobs, shops, services, community, transit, and friends and family all close together. Metro 2050 should continue to emphasize compact development in close proximity to transit.
3. **Build and Protect Affordable Housing:** Residents are deeply concerned about housing affordability and choice. Metro 2050 should support the expansion of housing choice in all communities and emphasize the protection of existing affordable housing stock and the creation of new affordable housing, especially in transit corridors and in advance of new transit investments.
4. **Improve Transit and Reduce Congestion:** Residents are supportive of improving the transit system and are concerned about congestion on the roads; in particular, improvements to travel reliability are seen as a high priority. Metro 2050 should support improvements to the transit system as well as actions that could reduce congestion and improve reliability such as de-congestion pricing and transit priority measures.
5. **Demonstrate Leadership in Climate Change Mitigation and Adaptation:** Residents and stakeholders are concerned about climate change and are supportive of regional action on climate change both to reduce emissions as well as to reduce exposure to the impacts of climate change through adaptation strategies.

The survey results are consistent with the results of the Shaping our Communities Engagement Survey that Metro Vancouver commissioned in 2017 (Reference 2) as well as other past market research efforts led by Metro Vancouver.
ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
There are no financial implications to this report.

CONCLUSION
The joint process between TransLink and Metro Vancouver to engage residents and stakeholders on their values and their vision for the future of the region included a Regional Stakeholder Workshop in June 2019 and the Phase 1 Engagement Survey in the spring and summer of 2019. The findings of these two engagement activities will support the development of Transport 2050 and Metro 2050 as well as support a better alignment between the two regional plans.

References
1. Shaping our Transportation Future, Together: Transport 2050: Phase 1 Report, Appendix A Survey and Poll Results, p 32
2. Shaping our Transportation Future, Together: Transport 2050: Phase 1 Report, Appendix C Summaries of Stakeholder Events:
3. Shaping Our Communities Engagement Initiative – Results of the Regional Survey on Residents’ Perspectives on What Makes Neighbourhoods Great, Regional Planning Committee Report, July 14, 2017
RECOMMENDATION
That the Finance and Intergovernment Committee receive for information the report dated December 13, 2019 and titled “Metro Vancouver’s 2019 Zero Waste Conference.”

EXECUTIVE SUMMARY
Over 500 people participated in the 2019 Zero Waste Conference, hosted by Metro Vancouver and the National Zero Waste Council, on October 30 and 31. The draw was a compelling program filled with unique perspectives, valuable insights and inspirational messages that attracted a diverse audience of individuals from government, business, academia and NGOs interested in waste prevention and a transition to a circular economy. With these kind of individuals present, the Conference was a unique and rewarding learning and networking environment – one that was enhanced in 2019 by a new conference app and informal opportunities for participants to network during breaks in the program. The conference also provided an opportunity to influence planning for Canada’s hosting of the World Circular Economy Forum in 2020, with a closing panel of Canadian leaders in circular economy engaging with each other and the audience on how to mobilize for success in creating a Circular Canada.

PURPOSE
To provide the Finance and Intergovernment Committee an overview of Metro Vancouver’s Ninth Annual Zero Waste Conference: A Future without Waste: Mobilizing for Success in the Circular Economy held on Wednesday, October 30 and Thursday, October 31, 2019 at the Vancouver Convention Centre.

BACKGROUND
Metro Vancouver’s annual Zero Waste Conference is designed to inform and inspire regional and national stakeholders engaged in actions that will deliver on the waste reduction goals of the Integrated Solid Waste and Resource Management Plan. Effective action on waste prevention requires cross-sectoral collaboration at a geographical scale larger than the region; including changes in design and materials used in production, aligning policies across jurisdictions, and fostering innovation. Connections made through the National Zero Waste Council to thought leaders and change agents involved in identifying, promoting and adopting waste prevention measures and opportunities to transition to the circular economy are essential to the development of the Conference program. A strong program attracts participants from all levels of government, the business sector, sustainability practitioners and academia within the region, and increasingly across Canada and globally, to engage. Through knowledge exchange and networking at the Conference,
strong and informed advocates for advancing waste prevention and the transition to a circular economy in Metro Vancouver and across Canada are created.

This report summarizes key aspects of the 2019 Zero Waste Conference.

2019 ZERO WASTE CONFERENCE
In 2020, Canada will host the World Circular Economy Forum (WCEF) marking the first time this global event is held in North America. The Forum will be co-organized by the Government of Canada and the Finnish innovation fund Sitra and held in Toronto, September 29 to October 1. The decision to host a WCEF is an indication of how the Federal government views a transition to a circular economy as a means to address environmental issues (e.g. greenhouse emissions, plastic waste) while creating economic opportunities and supporting innovation. 2020 will also mark the 10th anniversary of the Zero Waste Conference. Both events were considered in the development of the program for the 2019 Zero Waste Conference as it is seen as a pivotal stepping stone to both events on the journey to a Circular Canada.

Program Highlights
Metro Vancouver’s Zero Waste Conference is renowned for its ability to attract high caliber speakers and panelists, and this year’s conference was no exception.

The keynote speakers were inspiring and compelling. Skylar Tibbits, professor at MIT, opened up the Conference challenging participants to think about self-organizing systems found in nature that could be mimicked or replicated in textile manufacturing, architecture and even in mitigating sea level rise. Harald Friedl, CEO of Circle Economy, inserted a sense of urgency into the discussions – the environmental imperatives are clear and there are roadmaps and best practices that can move Canada into its journey to a circular economy. Valerie Craig, from the National Geographic Society, through a very visual presentation brought the plastics pollution problem center stage and set up the discussions to follow on day 2. The next day opened with an energetic and engaging interaction between Arthur Huang, CEO of Miniwiz, and Tom Szaky, CEO of Terra Cycle, who lead financially successful global companies by applying circular approaches to reusing “waste” and innovating business models that will enable a future without waste.

On day 1 panel topics included Business Transformation, Early Findings – Food Waste and Packaging, and Circular Cities – European Stories and the Canadian Journey. Also included in Day 1 was the Canadian Innovation Showcase that marks the second year of collaboration between the National Zero Waste Council and Think Beyond Plastic to highlight Canadian innovators who are implementing circular solutions to ocean plastics, food waste and packaging, and the textiles industry. On day 2 the first panel was “Plastics: A Global Challenge and Opportunity for Circularity at Scale” which began with two short presentations; the first on the Ellen MacArthur Foundation’s New Plastics Economy initiative and the Canadian Council of Ministers of the Environment (CCME)’s pan-Canadian approach to plastics waste. These presentations were followed by comments from a diverse, subject matter expert responding panel. The Conference ended with a session on Circular Canada: Setting a Collective Agenda for Action and Collaboration. Kari Helevi, from the Finnish Innovation Fund, Sitra reflected on Finland’s journey to a circular economy and the opportunity for learning that comes from the WCEF. And then through a moderated discussion with leaders in business, government and
research organizations active in developing and implementing circular economy solutions in Canada coupled with table discussions and interactions, markers for a collective agenda for action and collaboration for creating a Circular Canada were identified on the Conference floor.

The attachment provides the full program for the 2019 Zero Waste Conference and the biographies of the keynotes, speakers and moderators.

Moderators for the keynote and panel sessions used their own expertise to get speakers to elaborate on their thoughts as well as the questions from the audience. To ensure a thoughtful and interactive engagement on the part of participants, the Conference uses Pigeonhole, a software that allows participants to post their questions using their smart phones and to vote on questions they think important. (Reference 1 provides a link to a short video of the 2019 ZWC highlights.)

**Audience/Networking**

The total number of participants for the 2019 Zero Waste Conference was 530, which was a 5% increase from 2018. According to the information provided at registration, 35% of the participants were from the private sector (from start-ups to corporate brands), 31% were from government (elected officials and staff), 20% were from the non-profit/NGOs, 4% were from post-secondary institutions, and 9% were students and other interested members of the public.

Registration fees were $475 - an early bird rate of $375 was in place until July and a new approach was used this year to offer a specific number of discounted registrations of $250 to participants for whom the registration fee was not affordable - in all 20 discounted registration fees were facilitated.

A key driver in the increase in registration numbers is the conference programming and the networking opportunities - in particular as the number of participants across Canada and globally continues to increase. This year’s networking opportunities were enhanced by the introduction of a conference networking app, Whova, that enabled participants to connect with each other and speakers. The app proved very popular with participants, resulting in 5,000 profile views, 844 messages sent and received, and 161 contact info exchanges. In addition, specific tables were designated as sites where people interested in networking on specific topics (e.g., food waste, circular cities, plastic waste) could meet during breaks in the Conference programming and the reception. This was mentioned by many participants as a positive development.

**Marketing**

The Zero Waste Conference has a modest marketing budget but with that budget in 2019 we adopted an approach focused reaching a targeted audience while at the same time expanding the geographic scope of our marketing effort. This resulted in a stronger shift to digital and on-line as opposed to a reliance on print media. This more robust use of social media that enabled us to reach audiences most likely to attend the Conference. In addition, e-vites were sent on a regular basis to existing Metro Vancouver, National Zero Waste Council and Conference databases providing updates on the program and speakers. These e-vites are also posted on association notice boards and newsletters such as the Federation of Canadian Municipalities and the Circular Economy Leadership Coalition.
The Zero Waste Conference blog is used to promote the Conference but also to stimulate thinking and discussions on waste prevention and the circular economy before and after the Conference. Twenty-five blogs were published in 2019 and between June and October the blog resulted in more than 3,800 site visits.

Social and Earned Media
While we continue to use social media as an important outreach and engagement platform for the Conference, conventional media interest and coverage of the Conference continues to grow. In 2019, there were 25 on-line and print earned media stories as well as 26 earned media stories on radio and TV with an estimated ad value of $235,000. The draw for the media are the keynotes and other speakers. The highlight in 2019 was the front page story on the Vancouver Sun’s October 27, 2019 edition on the issues of waste prevention and the circular economy with quotes from Valerie Craig and Tom Szaky as well as information on the Conference. (Reference 2 provides a link to Vancouver Sun story.)

Ongoing Knowledge Sharing - Zero Waste Conference Website
The Zero Waste Conference website is maintained throughout the year and provides participants and other interested individuals access to videos from all the keynotes, panel discussions and question and answer sessions in addition to the blog. Also included are previous year conferences representing a treasure trove of information as well as a marker of how the discussion of waste prevention and the transition to the circular economy is evolving in Canada. (Reference 3 provides a link to these videos.)

Sponsorships
While registration fees are the main source of funds to augment the Zero Waste Conference budget, the opportunity for sponsorships was introduced in 2018 - sponsorships from organizations that are aligned with the importance of waste prevention and a transition to a circular economy. Sponsors for the 2019 conference included The Canadian Stewardship Alliance (Gold level), Save-on Foods (Silver level), and Cascades (Bronze level) for a total of $17,500.

NEXT STEPS
The 2020 Zero Waste Conference will take place November 12 and 13 and will mark its 10th Anniversary. Program planning has already begun and will both pick up and advance discussions and priorities for action coming out of the WCEF in September for moving towards a circular economy as well as linking action on circular economy to the pressing issue of effective action on climate change. A recent report by the Ellen MacArthur Foundation establishes the link between deep cuts in greenhouse gas emissions and the transition to a circular economy.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
The cost to host the 2019 Zero Waste Conference was $412,000. It was funded by Metro Vancouver Regional District Requisitions in the amount of $204,015 and $207,985 from a combination of Conference registration fees and sponsorships.
CONCLUSION

Over 500 people participated in the 2019 Zero Waste Conference, hosted by Metro Vancouver and the National Zero Waste Council, on October 30 and 31. The draw was a compelling program filled with unique perspectives, valuable insights and inspirational messages that attracted a diverse audience of individuals from government, business, academia and NGOs interested in waste prevention and a transition to a circular economy. This is an information report - no alternatives are presented.

Attachment: (Doc # 36243099)

2019 Zero Waste Conference -- A Future without Waste: Mobilizing for Success in the Circular Economy Program and Speaker Bios

References:
# 2019 ZERO WASTE CONFERENCE

## DAY ONE – WEDNESDAY OCTOBER 30

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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| 8:45 AM  | WELCOMING/OPENING REMARKS        | Sav Dhaliwal, Chair, Metro Vancouver  
Malcolm Brodie, Chair, National Zero Waste Council                     |
| 9:00 AM  | OPENING KEYNOTE                  | Skylar Tibbits, Founder of the Self-Assembly Lab at the Massachusetts Institute of Technology (MIT), and Associate Professor of Design Research in the Department of Architecture  
Humans are endlessly creative, but one of our greatest shortcomings is that we build things that have no ability to adapt to changes in the environment. Skylar Tibbits has a bold vision – a world where buildings, products and machines are capable of self-assembly, repair and replication, without robotic parts. This adaptive quality extends the life of materials and is the ultimate form of recycling. When you consider the reduce, reuse and recycling qualities of programmable materials, the possibilities are endless—reduced fossil fuel usage in material manufacturing, or even buildings that deconstruct to be recycled. Skylar Tibbits’ presentation will provoke us to radically reimagine how we use materials and interact with products in our day to day lives.  
Moderator: Kathryn Gretsing, Journalist and Professor |
| 9:45 AM  | BUSINESS TRANSFORMATION          | Businesses are critical drivers of the circular economy, and companies around the world are stepping up and demonstrating leadership with innovative approaches. Through thought-provoking presentations and discussion, this session will explore business transformation across sectors of the economy that are foundational to Canada. Hear how companies are innovating, and overcoming perceived and real barriers to realize economic opportunities while reducing environmental impacts by going circular.  
Spark Talk  
Brendan Edgerton, Director, Circular Economy, World Business Council for Sustainable Development  
Panel:  
Arran Stephens, Co-Founder and Co-CEO, Nature’s Path Foods Inc.  
Robyn Collier, Senior Vice-President, Risk & Regulatory Affairs and Chief Sustainability Officer, Canadian Tire  
Denise Coogan, Environmental Partnerships Manager, Subaru  
Adam Corneil, Founder and CEO, Unbuilders  
Moderator: Mike Gerbis, CEO, GLOBE Series & The Delphi Group |
| 11:15 AM | NETWORKING BREAK                 |                                                                        |
| 11:45 AM | CANADIAN INNOVATION SHOWCASE     |                                                                        |
Jumpstarting innovation is essential to moving to circular models of production, designing out waste and creating regenerative systems. The National Zero Waste Council, working in collaboration with Think Beyond Plastic, are collaborators in the Canadian Innovation Showcase and are looking for Canadian innovations that will contribute to a new plastics economy – one where the amount of new plastics is significantly reduced and the limited amount of plastic used is reusable, recyclable or compostable. The Innovation Challenge is looking for innovations in design with a focus on prevention, innovative business models that reduce waste, and new materials.

Announcement of Finalists

Hosts:
- Rebecca Beckham, Innovation Programs Coordinator, Think Beyond Plastic
- Malcolm Brodie, Chair, National Zero Waste Council

12:15 PM  ANNOUNCEMENT: EARLY FINDINGS: FOOD WASTE AND PACKAGING

As we work to tackle food waste on a national scale, considering how packaging is applied along the entire supply chain will be an important part of the solution. Following on the launch in 2018 of the National Zero Waste Council’s *A Food Loss and Waste Strategy for Canada*, a new body of research is exploring how food packaging affects the amount of food wasted along the supply chain in Canada. From meat to fresh produce and seafood, this project begins where other projects in the US and Europe have left off, toward a made-in-Canada approach to better prevent food loss and waste while supporting sustainable and environmentally sound decision-making by all in the supply chain. Catch an early snapshot of new findings on the relationship between food loss and waste and packaging offers insights for policy and practice.

Panel:
- Martin Gooch, CEO, Value Chain Management International
- Tom Rosser, Assistant Deputy Minister, Agriculture and Agri-Food Canada
- Ron Lemaire, President, Canadian Produce Marketing Association

Moderator: James Downham, Vice-Chair, National Zero Waste Council and President & CEO, PAC Packaging Consortium

12:45 PM  NETWORKING LUNCH

1:45 PM  KEYNOTE

- Harald Friedl, CEO, Circle Economy

Circular economy has recently made international headlines with the *2019 Circularity Gap Report*, released at the World Economic Forum in Davos. It sounds the alarm that the three most threatening environmental challenges – the climate crisis, biodiversity loss and diminishing resources – are not being addressed fast enough. A more rapid uptake of the circular economy provides a way out of this situation. Harald Friedl will share his insights on how to close the gap and accelerate the global transition to a circular economy.

Moderator: Mike Wilson, Executive Director, Smart Prosperity Institute
2:30 PM  **CIRCULAR CITIES: INNOVATION FROM THE GROUND UP**  
Cities and metropolitan regions are the epicenters of economic growth and innovation. And they are an ideal testing ground for the application of circular economy principles and approaches. Across the globe, the circular economy is being embraced at the city level for its potential to encourage a systems approach to waste prevention and material savings as well as job creation and innovation – catalyzing new business opportunities across a variety of sectors as we rethink how to deliver goods and services in a new way. We will be examining the changing roles of cities as zero waste leaders, as our society and its systems evolve towards the circular economy.

**European Stories:**
- **Anni Sinnemäki**, Deputy Mayor, Helsinki
- **Nolwenn Foray**, New Plastics Economy, Ellen MacArthur Foundation
- **Tamara Streefland**, Circular Cities Program Lead, Metabolic

**The Canadian Journey:**
- **Meaghan Davis**, Acting Manager, Circular Economy and Innovation Unit, City of Toronto
- **Barbara Swartzentruber**, Executive Director, Smart Cities, City of Guelph
- **Meaghan Kahnert**, Senior Consultant, Energy & Sustainability, Arup Canada
- **Christina Seidel**, Co-Chair, National Zero Waste Council Circular Economy Working Group, and Executive Director of the Recycling Council of Alberta

**Moderator:** **Brock Carlton**, CEO, Federation of Canadian Municipalities

4:00 PM  **KEYNOTE**
- **Valerie Craig**, Deputy to the Chief Scientist and Vice President of Operating Programs, National Geographic Society

Global awareness is amplifying around the great challenges presented by plastic waste. Across the planet, plastics are posing environmental threats while also serving a myriad of important uses that modern societies have grown to depend on. Through a highly visual presentation, Valerie Craig will take us on a journey to better understand how we’ve arrived at the challenges we are presented with, and remind us that solutions will truly require global thinking. From governments, corporations and civil society, systemic change will require human ingenuity and global thinking.

**Moderator:** **Vanessa Timmer**, Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

4:30 PM  **CLOSING REMARKS**
- **Sav Dhaliwal**, Chair, Metro Vancouver

4:45 PM  **NETWORKING RECEPTION**

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**DAY 2 – THURSDAY OCTOBER 31**

8:30 AM  **WELCOMING/OPENING REMARKS**
- **Jack Froese**, Chair, Metro Vancouver’s Zero Waste Committee
8:45 AM  KEYNOTE

- Arthur Huang, Founder and CEO, Miniwiz
- Tom Szaky, Founder and CEO, TerraCycle

As Founder and CEO of Miniwiz, Arthur is accelerating the shift to a circular economy where everything from consumer goods to architectural structures are made from recycled materials and then continue to be recycled as they reach the end of their lives. Meanwhile, Tom, Founder and CEO of Terracycle, began with the challenge of recycling the “non-recyclable” but has now moved beyond recycling to a new zero-waste platform involving a coalition of major consumer product companies. This new company, called Loop, is piloting the delivery of a wide range of consumer products in reusable, refillable containers – no more single use items. Be prepared to have your concept of waste wither away!

Moderator: Kathryn Gretsing, Journalist and Professor

9:45 AM  PLASTICS: A GLOBAL CHALLENGE & OPPORTUNITY AT CIRCULARITY AT SCALE

Only 9% of the plastic waste generated annually in Canada gets recycled. Three million tonnes, representing $8 billion in economic value, embedded energy, and resources, is thrown out - representing a huge innovation challenge and opportunity. This session will bring together leading voices on plastics to discuss and debate Canada’s path forward, and the changes needed to transform how we make, use, and recycle plastics, to ensure it remains in the economy and out of the environment.

Rethinking the Future - A Global Commitment
- Nolwenn Foray, New Plastics Economy, Ellen MacArthur Foundation

A Pan-Canadian Approach
- Michael Goeres, Executive Director, Canadian Council of Ministers of the Environment

Responding Panel:
- Mitchell Toomey, Director of Sustainability, BASF Corporation
- Jeremy Douglas, Vice President, Development, Ocean Wise
- Usman Valiante, Senior Policy Analyst, Cardwell Grove Inc.
- Maja Vodianovic, Co-Chair, National Zero Waste Council Plastics Advisory Panel and Mayor, City of Lachine
- Pierre G. Lafleur, Professor of Chemical Engineering, Polytechnique Montreal

Moderator: Velma McColl, Managing Principal, Earnscliffe

11:00 AM  CIRCULAR CANADA: SETTING A COLLECTIVE AGENDA FOR ACTION AND COLLABORATION

In collaboration with the National Zero Waste Council and the Circular Economy Leadership Coalition

The circular economy is a bold vision and framework for action that can only be realized if we harness our collective ingenuity, innovation and creativity. In 2020, Canada will
host the World Circular Economy Forum and the Zero Waste Conference will celebrate its 10th anniversary. This interactive closing session will bring together a diverse range of perspectives, and engage conference participants, to assess the scale and opportunity of the challenge and the leadership needed to accelerate Canada’s transition to a circular economy.

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<th>11:00 AM</th>
<th>CIRCULAR CANADA: A CONVERSATION WITH SITRA</th>
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<td>SITRA is a driving force behind Finland’s circular economy leadership at home and abroad - having developed one of the first national circular economy roadmaps, and pioneering the World Circular Economy Forum. Setting the stage for the panel that follows, Kari will reflect on Finland’s journey, and the leadership and success factors critical to circular economy transitions.</td>
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<td><strong>Kari Herlevi</strong>, Project Director, Circular Economy, The Finnish Innovation Fund, SITRA in conversation with <strong>Vanessa Timmer</strong>, Board Member, National Zero Waste Council and Co-Founder and Executive Director, One Earth</td>
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<th>11:30 AM</th>
<th>CIRCULAR CANADA: SETTING A COLLECTIVE, CANADIAN AGENDA FOR ACTION AND COLLABORATION</th>
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<td>Blending insights from Canadian leaders with audience input, we will assess where we have made inroads and what’s critical to ensure Canada’s transition to a circular economy at scale and speed. What strengths and innovations can we build from, and what leadership and action is needed now to mobilize for success? What success factors will be critical to scaling up Canada’s circular economy transition?</td>
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| **Panel:**  
- **Stephanie Cairns**, Director of Cities and Communities & Policy Director of Circular Economy, Smart Prosperity Institute  
- **Robyn Collver**, Senior Vice-President, Risk & Regulatory Affairs and Chief Sustainability Officer, Canadian Tire  
- **John Coyne**, VP, External Affairs & Sustainability, Unilever Canada & Executive Chair of the Board, Canadian Stewardship Services Alliance  
- **Sophie Langlois-Blouin**, Vice-President of Operations, RECYC-QUÉBEC  
- **Mikhael Metauro**, National Business Development and Sales Strategist, Cascades Recovery+  
- **Christina Seidel**, Co-Chair, National Zero Waste Council Circular Economy Working Group, and Executive Director of the Recycling Council of Alberta  
- **Mike Wilson**, Executive Director, Smart Prosperity Institute |
| **Moderator**: **David Hughes**, Co-Chair, Circular Economy Leadership Coalition and President & CEO, The Natural Step Canada |

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<th>12:55 PM</th>
<th>CLOSING REMARKS</th>
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| 1:00 PM | NETWORKING LUNCH |
A Future Without Waste: Mobilizing for Success in the Circular Economy

DAY ONE – WEDNESDAY, OCTOBER 30

8: 45AM WELCOMING/OPENING REMARKS

Sav Dhaliwal
Chair, Metro Vancouver Board

Sav Dhaliwal was elected Chair of the Metro Vancouver Board in November 2018, following a decade as a Board Director and 16 years as City of Burnaby Councillor. He has also served as president of both the Union of B.C. Municipalities and Lower Mainland Local Government Association and worked with the Federation of Canadian Municipalities as the Chair of the Standing Committee for Municipal Finance and as well as Infrastructure and Transportation Policy. Prior to local politics, Sav enjoyed a long career in the private sector working in information technology at TELUS. He has also served not-for-profit organizations in Burnaby, including the Burnaby Minor Hockey Association, Burnaby Sports Hall of Fame Committee, New Vista Society and the Burnaby Lions Club. Sav has been recognized by the Government of Canada, the University of British Columbia & the Goel Family Charitable Foundation, the Fiji Association of British Columbia and the Chetna Association of Canada for his outstanding services to the Community. He and his wife, Cheryl, have lived in Burnaby for more than 40 years.

Malcolm Brodie
Chair, National Zero Waste Council

Malcolm Brodie has been a Board Director and Chair of the National Zero Waste Council since its inception in October 2013. He has also been a member of Council for the City of Richmond since 1996, and Mayor since 2001. Malcolm Brodie has been appointed by his Council to the Board of Directors of Metro Vancouver and he currently is the Chair of the Water Committee, Vice-Chair of the Performance and Audit Committee and also serves on the Finance and Intergovernment Committee, the Mayors’ Committee, the George Massey Crossing Task Force, and the Industrial Lands Task Force. He represents Metro Vancouver on the Municipal Finance Authority, and in 2015, was elected as Chair. Before election to Council, Mayor Brodie was a practicing lawyer and had a long record of service to Richmond in the volunteer community.

EMCEE

Vanessa Timmer
Co-Founder & Executive Director, One Earth

Dr. Vanessa Timmer is the Executive Director of One Earth, a Vancouver, Canada-based environmental ‘think and do tank’ creating and imagining sustainable ways of living in cities and around the world. One Earth collaborates with partners to transform how people live their lives – what they need, what they consume and produce, and what they aspire to – enabling everyone to live good quality of lives within their fair share of our planet’s resources. Vanessa is also a Senior Research Fellow at Utrecht University with Pathways to Sustainability, the Urban Futures Studio, and the Copernicus Institute of Sustainable Development. She holds a Doctorate and studied at Queen’s University, Oxford, UBC and Harvard. Vanessa sits on the Multi-stakeholder Advisory Committee for the United Nations 10YFP Sustainable Lifestyles Programme. In Canada, she is a Board member of the National Zero Waste Council and of the Vancouver Foundation Partnership Committee. In 2018, Vanessa received the 2018 YWCA Women of Distinction Award in Environmental Sustainability.
9:00 AM OPENING KEYNOTE

Skylar Tibbits  
Founder, Self-Assembly Lab & Associate Professor of Design Research;  
Department of Architecture, MIT

Skylar Tibbits is a trained architect, designer, computer scientist, and artist whose research focuses on developing self-assembly technologies for large-scale applications in our physical environment. He is the founder and director of MIT's Self-Assembly Lab, and a faculty member in MIT's Department of Architecture. Previously, he worked at a number of renowned design offices, has designed and built large-scale installations around the world, and has exhibited work at The Guggenheim Museum, NY. Tibbits has been published in The New York Times, Wired, and Fast Company, and has guest lectured at The University of Pennsylvania, Pratt Institute, and Harvard's Graduate School of Design. He was recently named R&D Magazine's 2015 Innovator of the Year and awarded an Architectural League Prize and a TED Senior Fellowship. Skylar is on the cutting edge of 4D printing, where the fourth dimension is time. At his Self-Assembly Lab, Skylar and his team design things which transform over time, adapting to their environment. From 'intelligent' water pipes that contract and expand as needed to robotics without wires or motors, inspired by natural systems like DNA and proteins, Skylar takes a transformative, responsive way of designing that has huge implications for manufacturing, city building, consumer product development and aerospace.

MODERATOR

Kathryn Gretsinger  
Journalist and Professor

Kathryn Gretsinger is a Vancouver journalist. She's a regular contributor at CBC and she teaches at UBC's Graduate School of Journalism.

9:45 AM BUSINESS TRANSFORMATION

Brendan Edgerton  
Director, Circular Economy, World Business Council for Sustainable Development

Brendan is the Director of Circular Economy at the World Business Council for Sustainable Development, a global, CEO-led organization of over 200 companies working together to accelerate the transition to a sustainable world. Since joining WBCSD in Geneva in 2015, Brendan has contributed to over 10 publications on the circular economy. Brendan most recently co-developed and launched Factor10, WBCSD’s circular economy program. Factor10 now has almost 40 members, spanning across 15 industries, 17 countries and responsible for over USD $2 trillion in annual turnover. Brendan also contributed to the establishment of the Alliance to End Plastic Waste. Brendan has an MBA from the Yale School of Management, a Master of Environmental Management from the Yale School of Forestry & Environmental Studies and a bachelor’s in Ecological Design from the University of California Santa Cruz.
A Future Without Waste: Mobilizing for Success in the Circular Economy

Arran Stephens  
Co-Founder & Co-CEO of Nature's Path Foods Inc.

Arran Stephens has passionately helped pioneer the organic movement for over 50 years before it became a global industry. Born on his family’s farm in 1944, he learned an invaluable lesson from his dad: "Always leave the soil better than you found it." Bettering the soil, communities and the world has been his lifelong work. Starting with $7 and a $1,500 loan, Arran started a small natural foods restaurant in 1967 that ultimately became America’s first certified organic cereal processor in 1985, and within a few years, the world’s largest organic cereal brand - Nature’s Path. In an age of sell-outs, Nature’s Path remains a proudly independent family enterprise, involved in farming, processing and marketing organic products worldwide. All three of their modern factories have earned Zero Waste Certification—the only cereal producer so far to achieve this designation. Nature’s Path is a Founding Partner of Loop, joining a coalition of global brands rethink and reworking its manufacturing and packaging to offer goods in reusable containers. Through a circular, zero-waste model, empty containers are collected from the consumer and refilled by the manufacturer at least 100 times and recycled into something new at the end of the container’s life cycle. This continuous cycle of reuse and refill aims to address our waste crisis and overuse of our planet’s resources. Arran has received many high-profile awards during his career, including; an Organic Pioneer Award from Rodale Institute (2018) and the Ernst & Young Entrepreneur of the Year Award (2002). Arran has contributed to the success of various organizations, where he has served, or continues to serve, including; Advisory Board of the UBC Land and Food Systems, Rodale Institute and the Canadian Health Food Association.

Robyn Collver  
Senior Vice-President, Risk & Regulatory Affairs and Chief Sustainability Officer, Canadian Tire

Robyn Collver is Senior Vice-President, Risk and Regulatory Affairs and Chief Sustainability Officer for Canadian Tire Corporation, Limited. Robyn joined Canadian Tire Corporation in 2002, was appointed General Counsel of Canadian Tire’s Financial Services division in 2004 and served as General Counsel of Canadian Tire Corporation, Limited from 2008 to 2015. Her current role includes developing the enterprise risk function, creating the company’s positions on regulatory policy, overseeing the regulated aspects of the business, and corporate citizenship, including environmental sustainability. Robyn is currently on the Boards of Directors of Alzheimer Society of Toronto, Stewardship Ontario and Savers, Inc. as well as the Steering Committee of the Circular Economy Leadership Coalition. Robyn holds a law degree from University of Toronto and an Honours Bachelor of Business Administration from Acadia University.

Denise Coogan  
Environmental Partnership Manager, Subaru

Denise Coogan (MA in Sustainable Development/Policy) is recognized as a leading zero landfill expert. She leads the company’s external environmental and sustainability programs, which include Subaru’s initiative to bring zero landfill to the national parks. During her tenure at Subaru Indiana Automotive (SIA) as Safety and Environmental Compliance Manager, Denise headed the plant’s zero landfill effort, which was achieved with the last waste shipment going to the landfill in May 2004. Because of her efforts, SIA is one of the most environmentally friendly auto manufacturing facilities in the world. Throughout her time at SIA, Denise advised more than 800 corporations on how to implement zero landfill best practices in their respective facilities. Denise holds professional certifications as a Registered Environmental Manager (REM) and a Certified Hazardous Materials Manager (CHMM). Her master's thesis laid out the path a company needs to take to achieve zero landfill.

Finance and Intergovernment Committee
A Future Without Waste: Mobilizing for Success in the Circular Economy

Adam Corneil
Founder & CEO, Unbuilders

Adam is a serial entrepreneur with an extensive background in deconstruction, reclaimed woodwork, & Passive House construction. Flipping his first house with his father at the age of 16, he was instantly hooked on crafting old, weathered projects into new, fresh and well-built homes and spaces. After founding and running Naturally Crafted Contracting for 5 years, Adam saw a need for major changes in the demolition industry. In 2018, Adam launched Unbuilders which is Canada’s foremost deconstruction company. For every home Unbuilders deconstructs, approximately 50 tonnes of waste are diverted from landfill. Salvaged materials are upcycled through donations to charity, generating tax receipts for building owners and reducing costs below traditional demolition. Unbuilders has seen tremendous growth in demand for its services and is projected to scale up its waste diversion impacts in future years.

MODERATOR

Mike Gerbis
CEO, GLOBE Series & The Delphi Group

Mike oversees two leading Canadian organizations with a combined mission to “identify, connect and support the global community of change makers to accelerate society’s transformation to a sustainable, prosperous and socially just future for our children.” As CEO of The Delphi Group and GLOBE Series, Mike spends a significant amount of his time developing partnerships and working closely with domestic and international leaders from all levels of government, private sectors across the economy, not-for-profit groups, youth organizations and clean tech solution providers and investors to advance the transition to a sustainable future, while enhancing Canada’s prosperity. He also provides strategic insight to Boards of Directors, federal and provincial ministers and senior executives on issues related to climate change risk management, corporate sustainability & clean tech/clean energy innovation, commercialization & deployment. In addition to over 25 years of experience in strategic consultancy and event management, Mike also devotes personal time to advancing sustainability and clean technology. He is past Chair of Clean Air Champions and has co-founded two other not-for-profit organizations – Leading Change Canada and The Climate Reality Project Canada. He also regularly engages and educates youth and business leaders across Canada through initiatives such as SHAD Valley International, TEC Canada and requested presentations and workshops for boards and senior executives on topics such as sustainability, clean tech/clean energy innovation and climate change risk mitigation.

11:15 AM NETWORKING BREAK

11:45 AM CANADIAN INNOVATION SHOWCASE

CO-PRESENTERS

Malcolm Brodie and Rebecca Beckham
Rebecca Beckham, as the Innovation Programs coordinator, is responsible for developing the innovator support tools and programs at Think Beyond Plastic. She is a monitoring and evaluation specialist with expertise in African nation development and security. She has worked in Rwanda with Catholic Relief Services agriculture program that involved monitoring and evaluation, facilitation, and supervising training workshops for agriculture extension agents. Prior to that Rebecca spent two years with the Peace Corps in Cameroon, where she worked on community needs assessment, resource strategies, strengthening various women cooperatives, and designing/implementing a comprehensive food security project.

She is completing two master’s degrees from The Middlebury Institute of International Studies at Monterrey in public administration and international environmental policy.

FINALISTS

Marine Plastics Category: Gil Yaron, Director of Market Development, Ocean Legacy Technologies

Food Packaging Category: Vinson Luong, Team Lead, Veritas Blockchain Consulting

Textiles Category: Blyth Gill, Co-founder, Tradle

12:15 PM ANNOUNCEMENT: Early Findings – Food Waste and Packaging

Martin Gooch, PhD
Chief Executive Officer, Value Chain Management International (VCMI)

Dr. Martin Gooch is co-founder and CEO of VCMI, a global consulting company headquartered in Oakville, Ontario. VCMI assists businesses to enhance their long-term profitability and environmental sustainability by implementing systems for driving continual improvements in performance. Martin has two decades’ experience in analyzing businesses and value chains to identify where food and related waste occurs and why, and has authored or co-authored numerous publications on this topic, including the January 2019 report, “The Avoidable Crisis of Food Waste.” Martin holds a PhD and Master’s degree in agri-food management, and a Bachelor of International Business. In 2013 Martin received Bayer Inc.’s “Outstanding Canadian” award for his contribution to “Food Chain Partnerships.” In 2017 the Ontario Produce Marketing Association awarded Martin the Cory Clack-Streef “Produce Industry Person of the Year” award for assisting Ontario’s produce industry to benefit from reducing food loss and waste.
Tom Rosser
Assistant Deputy Minister, Strategic Policy, Agriculture and Agri-Food Canada

Tom Rosser joined Agriculture and Agri-Food Canada (AAFC) as the Assistant Deputy Minister of Strategic Policy in January 2017. He is responsible for leading on major policy issues on behalf of the Department including Cabinet and intergovernmental affairs, implementing the Food Policy for Canada, as well as economic analysis. Before joining AAFC, he was the Senior Assistant Deputy Minister of Strategic Policy at Fisheries and Oceans Canada, responsible for policy development, Cabinet and Parliamentary Affairs, communications, economic analysis and trade. Prior to that, he was the Assistant Deputy Minister, Canadian Forest Service (CFS), Natural Resources Canada (NRCan).

Ron Lemaire
President, Canadian Produce Marketing Association

Mr. Lemaire brings 26 years of extensive experience from a not-for-profit association perspective, with a focus on vertically integrated supply chains, government relations, advocacy, marketing, public/private partnerships, capacity building and food systems thinking. Working within the fresh produce world for over 17 years, Mr. Lemaire has become acquainted with the challenges and opportunities within the sector. The community throughout our fresh fruit and vegetable food system works to ensure they are stewards of our land for future generations, while meeting the need to supply safe, quality and affordable produce year-round. With this in scope, Mr. Lemaire works in a world of fast-paced change that manoeuvres through global regulatory swings, variable climate, food safety outbreaks, disruptive technology advancements and ever-changing consumer demands and expectations. In his role as CPMA President, Mr. Lemaire has worked to represent the needs and interests of over 850 Canadian and international member companies who are responsible for over 90% of the fresh fruit and vegetable sales in Canada.

MODERATOR

James Downham
Vice-Chair, National Zero Waste Council and President & CEO, PAC Packaging Consortium

James (Jim) Downham is a former package manufacturing CEO. Today he is the CEO of PAC Packaging Consortium and Chair of LeaderLinx, an executive recruiter. Jim is the Vice-Chair of the National Zero Waste Council. He is a passionate sustainability, circular economy, brand design and innovation packaging leader and holds Canadian and US citizenships. In 2014 Jim was inducted into the Packaging Hall of Fame. PAC Packaging Consortium is a non-profit association that serves global client partners across the packaging value chain to achieve their business objectives. Under Jim’s leadership PAC has created several programs including PAC NEXT and PAC FOOD Sustainability Programs; the IFS PACsecure global food packaging safety standard; intelliPACK, A Smart Packaging Innovation Catalyst; the PAC GLOBAL LEADERSHIP AWARDS; the PAC TO THE FUTURE Conferences and the PACed Certificate Program.

12:45 PM    NETWORKING LUNCH
A Future Without Waste: Mobilizing for Success in the Circular Economy

1:45 PM    KEYNOTE

Harald Friedl
CEO, Circle Economy

In his role as Circle Economy’s CEO, Harald brings extensive international experience running both for-profit and non-profit businesses with a focus on scaling impact. Before joining Circle Economy in 2017, Harald spent 5 years in Myanmar, during which he co-founded Impact Hub Myanmar, headed the market development for the world market leader of electromechanical hydropower projects in the country and co-founded Myanmar’s first pre-incubation programme for social enterprises. Prior to moving to Myanmar, he lived in New York where he worked as the Head of Office for the Assistant Secretary-General and acted as the spokesperson for the Deputy Prime Minister of Finance in Austria. He has also spent time as a journalist and TV presenter for economic-focused news. Harald enjoys connecting with people who are striving to make the world a better place for future generations. In his spare time, he loves exploring the great outdoors with his wife and kids.

MODERATOR

Mike Wilson
Executive Director, Smart Prosperity Institute

Raised in New Brunswick, Mike began his career as a lawyer in Toronto, left to become senior policy adviser to the federal Environment Minister, and then went on to hold a series of increasingly senior roles in the Government of Canada working at the intersection of the environment, economy and innovation. During his career in government, he was responsible for creating the government’s clean air agenda, led Environment Canada’s environmental assessment program and spearheaded a successful public-private initiative to strengthen the role of sustainability in investment decisions. Now, as Executive Director of the Smart Prosperity Institute - Canada’s leading green economy research institute and think tank. Mike leads a dynamic and accomplished team, producing cutting edge research, policy advice and communications strategies for clean economic growth across the Canadian economy. Mike has long held a firm belief that ‘green’ and ‘growth’ can go hand in hand and a drive for making that happen. He brings passion and experience to his role at the helm of Smart Prosperity Institute.

2:30 PM    CIRCULAR CITIES: Innovation From The Ground Up

Anni Sinnemäki
Deputy Mayor, City of Helsinki

Anni Sinnemäki has been the Deputy Mayor for the City of Helsinki, responsible for city planning and real estate, since 2015. Since June 2017 she is in charge of Helsinki’s Urban Environment Division. She has been a member of the Helsinki City Council since 2005. Sinnemäki was a Member of the Finnish Parliament for 15 years (1999–2015), representing The Green League of Finland. She was Minister of Labour from 2009 to 2011. From 2009 to 2011, Sinnemäki was also Chair of the Green League. Sinnemäki is working enthusiastically as a board member of Helsinki Metropolitan Smart & Clean Foundation to make zero plastic waste reality in the Helsinki capital region. Sinnemäki was born in Helsinki, is married and has two children. She has published two collections of poems and she also wrote lyrics for albums by Ultra Bra group. Sinnemäki holds a Bachelor of Arts degree from the University of Helsinki.
Nolwenn Foray
New Plastics Economy, Ellen MacArthur Foundation

Nolwenn is a Consultant for the Ellen MacArthur Foundation’s New Plastics Economy initiative, an ambitious initiative to rethink and redesign the plastics system based on circular economy principles. The initiative brings together key businesses from across the plastics value chain, Governments and NGOs to change the way we produce, use and reuse plastics, starting with plastics packaging. In her work, Nolwenn focuses on supporting the Plastics Pact, a network of initiatives that bring together all key stakeholders at the national or regional level to implement solutions towards a circular economy for plastics. Each initiative is led by a local organisation and unites governments, businesses, and citizens behind the common vision of a New Plastics Economy. Previously, Nolwenn worked as a Project Officer for the French Environmental and Energy Management Agency (ADEME) in France and in New Caledonia, focusing on circular economy and waste management, including in tropical coastal areas. She also worked in an environmental consultancy in Paris, and on biodiversity and water resources in the public sector in Chile. She holds a Masters degree in Environmental Project Management, Public Policy and Economics from the Institute of Political Studies of Grenoble, France, in partnership with the National Polytechnic Institute.

Tamara Streefland
Circular Cities Program Lead, Metabolic

Tamara Streefland leads the Circular Cities Program at Metabolic, a consulting, research, and venture building firm focused on tackling global sustainability challenges and advancing a circular economy. Headquartered in Amsterdam, Metabolic works with cities and regions to drive systemic change, implementing circular approaches across a range of scales, from buildings, neighborhoods, and area development plans, to integrated city-wide strategies. Tamara has worked on a wide range of urban resilience projects, focused on water ecology, the freight sector, waste systems, and renewable energy in cities including Amsterdam and New York City. Her background as an earth scientist, coupled with experience in collaborative design and systems thinking, has formed the basis for creative and feasible strategies to help cities transition to more sustainable and circular models.

Meaghan Davis
Acting Manager, Circular Economy and Innovation Unit, City of Toronto

Meaghan Davis is the Acting Manager for the City of Toronto’s Circular Economy and Innovation unit in the Solid Waste Management Services Division. Meaghan is working to advance Toronto’s aspirational goals of zero waste and becoming Ontario’s first municipality with a circular economy. Her current focus is on ramping up efforts to incorporate circular principles in City procurements, projects, and communications strategies. Meaghan has also been involved in the development of Toronto’s first project to generate renewable natural gas from Green Bin organic waste. The initiative will enable the City of Toronto to create a closed-loop approach where organics collection trucks can be powered by the waste product they collect. Prior to joining the City of Toronto, Meaghan worked for Urban Strategies, a global planning and urban design firm, and for a range of Toronto-based arts companies, including the international multi-arts festival, Luminato. Meaghan holds a Masters of Urban Planning from Ryerson University and a Bachelor of Arts from McGill University.
Barbara Swartzentruber
Executive Director, Smart Cities, City of Guelph

Barbara Swartzentruber is currently the Executive Director of the Smart Cities Office at the City of Guelph. As winners of the Canada's Smart City Challenge, the City and County of Wellington are collaborating with public and private sector partners to create Canada's first circular food economy. Building on the principles of a circular economy and leveraging the power of data and technology, they are re-imagining a sustainable regional food system that increases access to healthy nutritious food for all, prevents food loss and waste, and creates circular businesses for a green economy. Barbara has more than 30 years of experience in public sector innovation at the local, provincial and national levels in the areas of smart cities, citizen engagement, digital economy, rural broadband, open government, data and technology. She has taught public policy, community development and advocacy at several Canadian universities.

Meaghan Kahnert
Senior Consultant, Energy & Sustainability, Arup Canada

Meaghan Kahnert is a Senior Consultant with Arup Canada's Energy & Sustainability team. Meaghan is a Licensed Professional Engineer (P.Eng.) and a LEED Accredited Professional with a specialization in Building Design and Construction (LEED AP BD+C). She is also a RESET Accredited Professional (an international tech-driven building standard focused on real-time data for human health and wellbeing). Meaghan brings deep expertise in scalable solutions for cities, urban planning and buildings projects in pursuit of impactful high-performance design, climate action planning, resilience and health and wellness strategies.

Christina Seidel
Co-Chair, National Zero Waste Council Circular Economy Working Group & Executive Director of the Recycling Council of Alberta

Christina holds a PhD in Engineering Management, a Masters degree in Environmental Design, as well as a B.Sc. in Mechanical Engineering. She operates sonnevera international corp., a waste reduction consulting firm, and is the current Executive Director of the Recycling Council of Alberta. She is also currently co-chair of the National Zero Waste Council’s Circular Economy Working Group, and was also a member of Minister of Environment and Climate Change Canada Catherine McKenna’s Plastics Advisory Group. Christina loves rural life, choosing to live on a farm near Bluffton, Alberta, where her and her family train Warmblood horses, and enjoy many other outdoor activities.
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MODERATOR

Brock Carlton
Chief Executive Officer, Federation of Canadian Municipalities

Brock joined FCM more than 25 years ago. Since then, he has established himself as a leading voice on municipal issues, both domestically and internationally. As CEO, Brock leads a strong team of staff and a united membership in advancing municipal interests by influencing both federal government decisions and national debates on issues that are critical to communities. He has built partnerships with private sector interests, professional associations, not-for-profit organizations and the academic community in order to speak as one united voice about the priorities of municipal government. Under Brock’s tenure, the municipal sector in Canada has seen dramatic increases in federal investments, as well as recognition for the vital role it plays in our national interest. As a result, FCM is now recognized as one of the most influential organizations in Canada. Brock is a dynamic and passionate speaker on municipal issues and federal-municipal relations. He believes that strong nations engage their municipal governments as true partners in nation building, and that they invest in their cities and communities as a means of solving local and national challenges.

4:00 PM  KEYNOTE

Valerie Craig
Deputy to the Chief Scientist & Vice President of Operating Programs, National Geographic Society

Valerie Craig is Deputy to the Chief Scientist and Vice President of Operating Programs for National Geographic Society. In this capacity, she has strategic and operational oversight for the series of flagship programs and projects that are helping to push the boundaries of exploration, further understanding of our world, and collaboratively generate solutions for a healthy, more sustainable planet. She previously worked on ocean and freshwater issues for National Geographic’s Impact Initiatives and Explorer Programs and oversaw the Lindblad-National Geographic Fund. From 2004 to 2010, with SeaWeb’s Seafood Choices Alliance, she worked across the seafood industry and ocean conservation community to find and create opportunities to make the seafood marketplace more sustainable. Valerie received a Master’s of Environmental Management from the Yale School of Forestry and Environmental Studies and has a Bachelor’s in International Relations.

MODERATOR

Vanessa Timmer
Co-Founder & Executive Director, One Earth

4:30 PM  CLOSING REMARKS

Sav Dhaliwal
Chair, Metro Vancouver Board

4:45 PM  NETWORKING RECEPTION
8:30AM    WELCOMING/OPENING REMARKS

Jack Froese
Chair, Metro Vancouver’s Zero Waste Committee

Re-elected to office in 2018, Mayor Jack Froese is currently serving his third term as Township of Langley Mayor. For 40 years, Mayor Jack Froese has lived, worked, and raised a family in Langley and was a successful business owner and farmer. He is also a retired police officer from the Vancouver Police Department. Mayor Froese is the Vice Chair of the TransLink Mayor’s Council, Chair of Metro Vancouver Zero Waste Committee, and a Director on the Metro Board.

8:45AM    KEYNOTE

Arthur Huang
CEO & Founder of Miniwiz

Arthur is a structural engineer, architect, and circular economy innovator. He has spent over a decade turning post-consumer waste into innovative products for businesses and consumers through his company, MINIWIZ. As founder and CEO of MINIWIZ, Arthur is focused on accelerating the shift to a closed-loop circular economy where all products are made from recycled materials and eventually, even those products will be recycled. Today, MINIWIZ is a global leader in transforming post-consumer products into retail store interiors, architectural structures, and consumer goods. Under Arthur’s leadership, MINIWIZ has received the World Economic Forum’s Technology Pioneer Award, The Financial Times’ Earth Award, and The Wall Street Journal’s Asian Innovation Award. Arthur has been a National Geographic Explorer since 2016 and the World Economic Forum recognized him as the Runner up for The Circular Leadership Award 2019 Davos. In February 2019, the World Economic Forum named MINIWIZ as one of the top 11 companies leading the way to a circular economy.

Tom Szaky
Founder & CEO of TerraCycle

Tom Szaky is founder and CEO of TerraCycle, a global leader in the collection and repurposing of complex waste streams. TerraCycle operates in 21 countries, working with some of the world’s largest brands, retailers and manufacturers to create national platforms to recycle products and packaging that currently go to landfill or incineration. Through TerraCycle, Tom is creating circular solutions for hundreds of waste streams such as cigarette butts, dirty diapers and used chewing gum that otherwise have no path to be recycled. TerraCycle operates the largest supply chain for ocean plastic in the world, partnering with companies to integrate this material into their packaging. Tom and TerraCycle have received hundreds of social, environmental and business awards and recognition from a range of organizations including the United Nations, World Economic Forum, Fortune Magazine and the U.S. Chamber of Commerce.

MODERATOR

Kathryn Gretinger
Journalist and Professor
9:45AM  PLASTICS A GLOBAL CHALLENGE & OPPORTUNITY AT CIRCULARITY AT SCALE

Nolwenn Foray
New Plastics Economy, Ellen MacArthur Foundation

Michael Goeres
Executive Director, Canadian Council of Ministers of the Environment

As Executive Director of the Canadian Council of Ministers of the Environment since 2010, Michael Goeres is responsible for guiding collaborative intergovernmental work as directed by federal, provincial and territorial ministers of environment. This work addresses some of Canada’s most pressing environmental issues including climate change, waste reduction and recovery, and air, soil and water quality. Most recently Michael facilitated the development by governments of the CCME Strategy on Zero Plastic Waste, approved in principle by ministers of environment in November 2018 and the first phase of the Action Plan on Zero Plastic Waste to achieve the Strategy, approved by ministers in June 2019. In 2015 Michael was recognized as one of Canada’s Clean 50. Michael joined CCME in 1997 as Director of Corporate Services. Prior to joining CCME, Mr. Goeres was Director of Finance and Administration of the Canada Grains Council Inc., an industry association of the Canadian grain trade. Earlier, Michael served as founding Executive Director of the Manitoba Intercultural Council, a provincial agency created to provide policy advice from ethnocultural communities to the Manitoba government.

Mitchell Toomey
Director of Sustainability, BASF Corporation

As Director of Sustainability for BASF Corporation, Mitchell Toomey leads a team working across the organization to bring BASF’s corporate purpose “We create chemistry for a sustainable future” to life: by further integrating sustainability in business strategies and collaborating with customers, value chain partners and other external stakeholders. Prior to joining BASF Mitchell served as a sustainability expert at the United Nations. His most recent position at the UN was Director, Sustainable Development Goals (SDG) Action Campaign. Mitch previously was UN’s Senior Adviser of the Knowledge, Innovation and Capacity Group in the Bureau for Development Policy. He has led groundbreaking work using digital media and technology to engage the public and civil society organizations around the world in collaborative crowdsourcing of development solutions focused on bringing vital services to the poorest and most vulnerable populations.

Jeremy Douglas
Vice President, Development, Ocean Wise

Jeremy has focused his career on building strategic, creative and sustainable partnerships that increase the capacity and impact of non-profit organizations worldwide. He is currently Vice President of Development at Ocean Wise, a global conservation NGO and parent organization of the Vancouver Aquarium. He oversees external funding and government relations – working closely with policy-makers, business leaders and major philanthropists. He developed the successful Plastic Wise initiative and has been involved in various plastics roundtables, workshops and speaking engagements. Before joining Ocean Wise, Jeremy held similar roles at the David Suzuki Foundation, BBC Media Action, and Action for Children – and spent a year living on a remote atoll in the Marshall Islands. He is also currently a board director at Vancouver Farmers Markets and Leading Change.
Usman Valiante
Senior Policy Analyst, Cardwell Grove Inc.

Usman is a senior policy analyst and commercial strategist with 27 years of experience in the fields of environmental science and economics, corporate and commercial strategy, public policy development, regulatory and institutional design, advocacy, negotiation, consultation and communications. He has provided public policy advice with specific focus on environmental regulatory design to the federal government, provincial governments, the Canadian Council of Minister of Environment and the Federation of Canadian Municipalities. Usman also provides commercial strategy and regulatory compliance advice to a number of North America’s leading manufacturing, consumer products and environmental services companies. He is currently a Director of the Alberta Beverage Container Management Board (BCMB), is an advisor to the Circular Economy Leadership Coalition and was a convener of Ontario’s Circular Economy Innovation Lab (CEIL).

Maja Vodanovic
Co-Chair, National Zero Waste Council Plastics Advisory Panel and Mayor, City of Lachine

Maja Vodanovic is an executive member of the Montreal Metropolitan Community (CMM) and Lachine Borough Mayor since November 2017. Maja Vodanovic is a member of the CMM’s Environment Commission that was mandated to revise Quebec waste management program following the crisis caused by the Chinese national sword policy. As of member of the National Zero Waste Council (NZWC) she Co-Chairs the Plastic Advisory Panel which produced Regulatory Approaches for Priority Plastic Wastes, a document that sets out concrete solutions to suggest specific regulatory measures to prevent, and better manage, those plastic wastes. Passionate about environmental issues, she has been actively involved in cleaning up our waterways and protecting our green spaces. One of Mrs. Vodanovic’s greatest challenges as a Mayor, is to make Lachine-Est—a 60-acre area under redevelopment—a Canada-wide model for a human-scaled ecological and sustainable development.

Pierre G. Lafleur
Professor of Chemical Engineering, Polytechnique Montreal

Dr Lafleur is a professor of Chemical Engineering with 37 years of experience in the field of polymer processing and properties of plastics. He is the author of more than 100 publications on several relevant subjects including recycling of plastics and biopolymers. He is a member of the Research Center for High Performance Polymer and Composite Systems and the Québec Acceleration Lab on Plastics and Circular Economy of the Institute for Environment, sustainable development and circular economy (EDDEC). Prior to his current position at Polytechnique Montreal, Dr Lafleur held the positions of Chair of the Chemical Engineering department and VP Academic and international. He is a Fellow of Engineer Canada and of the Canadian Academy of Engineering.
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MODERATOR

Velma McColl
Managing Principal, Earnscliffe

Velma McColl blends her deep understanding of business, government and policy to create opportunities for her clients. As a Managing Principal in Ottawa, Velma works on a range of economic and social issues including M&A, innovation, energy, environment and emerging technologies. She has been a driving force in the growth and diversification of Earnscliffe’s business. Prior to joining Earnscliffe in 2004, Velma advised Federal Cabinet Ministers on political strategy, policy and communications. She has also worked provincially in British Columbia and Alberta. She has worked to find creative solutions across federal/provincial/territorial, North American and international boundaries. Her career includes success as an entrepreneur and experience working collaboratively with business, academia, think tanks, not-for-profit organizations and the public sector. A proud mother and Westerner with twenty years’ experience in Ottawa, Velma studied at the University of British Columbia and the Banff School of Management. She is a co-founder of the Canadian Clean Technology Coalition and Women in GR. She has taken leadership roles with several organizations including Smart Prosperity, the Ryan’s Well Foundation and Ecotrust Canada.

11:00 AM CIRCULAR CANADA: SETTING A COLLECTIVE AGENDA FOR ACTION AND COLLABORATION

11:00 AM CIRCULAR CANADA: A CONVERSATION WITH SITRA

Kari Herlevi
Project Director, Circular Economy, The Finnish Innovation Fund Sitra

Kari Herlevi is a versatile multi-talent in the field of circular economy. He is currently leading the circular economy area at Sitra, the Finnish Innovation Fund. Previously responsible for the Resource efficient economy area in Tekes, the Finnish Funding Agency for Innovation, he managed the Green Growth – Towards a sustainable future programme, which aimed to identify potential new growth areas for the sustainable economy business. Kari has also worked in the Tekes Silicon Valley office for a few years and his special interests are circular economy, fast growing cleantech firms and developing countries like BRIC.

MODERATOR

Vanessa Timmer
Co-Founder & Executive Director, One Earth
Stephanie Cairns
Director of Cities and Communities & Policy Director of Circular Economy,
Smart Prosperity Institute

Stephanie Cairns has worked on Canadian environment, economy, and fiscal policy research initiatives for 25 years, helping senior policy makers distill expert advice, synthesize emerging best practices, and plan new initiatives. She has been a consultant or board member with many of Canada's leading environmental think tanks, and a policy advisor in the PMO and to federal and provincial cabinet ministers. Based in Victoria, BC, she currently works with the Smart Prosperity Institute, Canada’s leading source of research and policy insights for a stronger, cleaner economy. She is trained in cleaner production from Lund University, Sweden.

Robyn Collver
Senior Vice-President, Risk & Regulatory Affairs and Chief Sustainability Officer,
Canadian Tire

John D. Coyne
VP, External Affairs & Sustainability, Unilever Canada & Executive Chair of the Board,
Canadian Stewardship Services Alliance

John is well known for his leadership in corporate sustainability. He is a passionate activator of the Unilever Sustainable Living Plan, Unilever’s strategy to grow the business, reduce its environmental footprint and increase its positive contribution to society. John is Executive Chair of the Board of Canadian Stewardship Services Alliance, Inc., a director of Evergreen and Co-Chair of the Partners in Project Green steering committee, a major environmental initiative of the Toronto Region Conservation Authority. John has been recognized for his leadership in corporate sustainability by being named a Clean 50 honouree in 2013 and a Clean 16 honouree in 2018. In 2015, John was appointed as a member of the Ontario Government’s Climate Action Group advising the Ontario Minister of the Environment on effective climate change actions. In 2018, John was honoured to receive the Canadian General Counsel Award for Environmental, Social and Governance Leadership. John is Co-Chair of the Circular Economy Leadership Coalition (CELC) that was launched in 2018 designed to accelerate Canada's transition to a circular economy. In addition in 2018, John was appointed to the federal Plastics Advisory group advising Canada’s Minister of the Environment and Climate Change on issues relating to plastics and the implementation of the Ocean Plastics Charter.
Sophie Langlois-Blouin
Vice-President of Operations, RECYC-QUÉBEC

Sophie Langlois-Blouin has worked for the government agency RECYC-QUÉBEC since October 2005 and has been Vice-President of Operations since May 2018. Sophie coordinates all financial assistance programs and is in charge of extended producer responsibility (EPR), current recycling systems (curbside collection; organic matter; construction, renovation, and demolition waste), circular economy and waste reduction. She also oversees teams responsible for supporting municipalities and the industrial, commercial and institutional (ICI) sectors.

Mikhael Metauro
Director – Supply Development, Cascades Recovery+

Mikhael has been a proud member of the Cascades Family for over 15 years. With his undergraduate degree in Strategic Selling & Marketing, Mikhael currently works within the Recovery+ division of Cascades focusing on Business Development and Corporate Strategy. Day in and day out Mikhael has the opportunity to deal with a wide range of customers from different market segments and backgrounds with various types of discarded material recovery needs. “It’s amazing to see how more and more organizations are focusing on sustainability and have put the people power in place to start thinking about better ways to recover more and waste less. For me this is where my focus has been and always will be, working with organizations to help them achieve their sustainability goals through coaching, planning and execution.” Mikhael is focused on creating a world where all materials have a positive end of life – a truly Circular Economy.

Christina Seidel
Co-Chair, National Zero Waste Council Circular Economy Working Group & Executive Director of the Recycling Council of Alberta

Mike Wilson
Executive Director, Smart Prosperity Institute

MODERATOR

David Hughes
Co-Chair, Circular Economy Leadership Coalition and President & CEO, The Natural Step Canada

David Hughes is the President & CEO of The Natural Step Canada and also the Executive Co-Chair of the Circular Economy Leadership Coalition. He is highly regarded as a strategic leader with a strong track record of scaling the impact of some of Canada’s leading charities. David served as President & CEO of both Habitat for Humanity Canada and Pathways to Education Canada during periods of unprecedented growth and transformation. Prior to that he spent 10 years working with the international headquarters of the SOS Children’s Villages (SOS Kinderdorf International) which included postings to Africa, Asia, Europe, the USA and the United Nations. He holds an economics degree from the University of Western Ontario and a
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postgraduate degree in social policy and non-profit management from the London School of Economics (LSE). He also serves on the board of directors of The Climate Reality Project Canada.

12:55 PM  CLOSING REMARKS

Jack Froese
Chair, Metro Vancouver’s Zero Waste Committee

Sav Dhaliwal
Chair, Metro Vancouver Board

Lilah Williamson
15 year old Climate Activist & Founding member of Sustainabiliteens

1:00 PM  NETWORKING LUNCH
RECOMMENDATION
That the Finance and Intergovernment Committee receive for information the report dated January 2, 2020, titled “2019 International Events”.

EXECUTIVE SUMMARY
This report brings forward an update on 2019 International Events attended as part of the Leadership and Engagement program. In accordance with the Board adopted Leadership and Engagement Policy, Metro Vancouver will participate, at both a national and at an international level, in events that promote Metro Vancouver in a leadership role or that provide opportunity for engagement and continuous improvement in the advancement of organizational goals.

PURPOSE
To provide the Finance and Intergovernment Committee with an update on 2019 International Events undertaken as part of the Leadership and Engagement program.

BACKGROUND
At its meeting held January 16, 2019, the Finance and Intergovernment Committee approved attendance at several international events that align with the priorities of the Leadership and Engagement Program. This program enables Metro Vancouver to provide a strong advocacy role on its policy initiatives at both a national and at an international level and also creates opportunities for Metro Vancouver to enhance cultural and economic exchange. The Leadership and Engagement program builds upon the strategic priorities identified in the Board Strategic Plan and encompasses all aspects of the organization.

2019 World Circular Economy Forum – June 3-5, 2019, Helsinki, Finland

- The World Circular Economy Forum (WCEF) is a global, by-invitation event, led by the Finnish Innovation Fund Sitra, bringing together business leaders, policymakers and experts to learn first-hand about the new developments in circular economy solutions.
- Metro Vancouver and the National Zero Waste Council, represented by Director Brodie, was part of a small delegation of Canadian stakeholders invited to participate in WCEF 2019.
- Conference sessions covered a range of topics relevant to local government planning and operations, like circular economy in construction, circular procurement, circular economy and climate change, and circular economy and water.
- A significant role for the Canadian delegation, under the leadership of the Circular Economy Leadership Coalition, of which Metro Vancouver’s National Zero Waste Council is a founding
member, was preparatory work for WCEF 2020 which will be held in Toronto from September 29 to October 1 – the first time in North America.

- Director Brodie presented on the topic of circular cities at a side event on June 5, entitled *Circular Canada: Exploring the Circular Economy on the Road to WCEF 2020* and participated in a half-day session hosted by the Nordic Council of Ministers for Denmark on ‘Circular Economy in Local Governments’.
- As Chair of the National Zero Waste Council, Director Brodie hosted a meeting with other Council members in attendance, and participated in side meetings that took place with the Government of Canada and Sitra representatives regarding planning for WCEF 2020.
- Metro Vancouver and the National Zero Waste Council will continue to play a key role in the planning for Canada to host WCEF 2020.

**Asia Pacific Cities Summit and Mayor’s Forum - July 7-10, 2019, Brisbane, Australia**

- The Asia Pacific Cities Summit (APCS) and Mayor’s Forum is the region’s premier Summit that brings together city leaders, key influencers and the industry to build relationships, connect, and exchange knowledge and information on innovative urban solutions to build successful and sustainable cities that contribute to the global economy. Over 135 cities (1,303 delegates and 93 mayors) attended the 2019 event representing a voice for a population of over 134 million people.
- Metro Vancouver’s engagement with the APCS dates back to its participation at the 2017 Summit in Daejeon, Republic of Korea and the establishment of a relationship with one of the key organizing bodies and Australia’s largest regional advocacy organization - the South East Queensland (SEQ) Council of Mayors and a subsequent study tour to Brisbane in 2018. Vice-Chair Buchanan and Director Booth attended the 2019 Summit and participated in a separate program organized by the SEQ Council of Mayors immediately following the APCS Summit focussed on affordable housing, zero waste/circular economy, transit and indigenous relations.
- As part of the “Sustainability of Cities” summit theme on July 9th, Vice-Chair Buchanan participated on a panel – *Sustainable Destinations – Lessons Learned from across the world* and presented Metro Vancouver’s 5 Year Outlook and the work of the National Zero Waste Council and Metro Vancouver’s education efforts around zero waste and WTE.
- Vice-Chair Buchanan and Director Booth also presented at various meetings and site visits organized by the SEQ Council of Mayors.
- There is strong alignment between the work of Metro Vancouver and the SEQ Council of Mayors and a strong relationship is forming – a delegation from the SEQ Council of Mayors to Metro Vancouver is anticipated in 2020.

**ICLEI Resilient Cities 2019 - June 26- 28 in Bonn, Germany**

- ICLEI Resilient Cities is the annual global forum on urban resilience, adaptation, and sustainability policies in response to the complex challenges, from rapid urbanization and climate change to ecosystem degradation and inequity.
- The international platform allows for local and regional governments to share knowledge, best practices, challenges, and innovations for creating more resilient cities. It also serves as
an annual meeting point to track local progress on the resilience targets of the Sustainable Development Goals to make cities inclusive, safe, resilient, and sustainable.

- The 2019 conference program centered on urban resilience and climate change adaptation. Directors Froese and McEwen attended the conference providing an opportunity to connect with others facing similar challenges to Metro Vancouver as Metro Vancouver moves forward with its Climate 2050 Strategic Framework and Clean Air Plan in its efforts to reduce carbon emissions as our region becomes more vulnerable to climate impacts.

**United Cities and Local Governments (UCLG) World Congress – World Summit of Local and Regional Leaders - Durban South Africa, November 11-15, 2019**

- An inheritor of the century-old International Municipal Movement, UCLG was created in 2004 when local and regional authorities across the world decided to unite their voices before the international community. It was founded on the principle that cities and local government are closest to the people and best able to react quickly to emerging issues. With the climate crisis and housing crises, the UCLG framework is needed now more than ever.

- The UCLG comprises 250,000 member cities and local governments and represents approximately 70% of the global population.

- The 2019 World Congress was largely an administrative meeting to elect the new president, but also provided updates on global initiatives. For example, the organization has adopted Agenda 2030 and the 17 Sustainable Development Goals (SDGs) to guide cities in their work. The SDGs are high level and consistent with the goals driving Metro Vancouver’s work. However, there is a large variety of approaches around the globe. For example, the Asia section of UCLG, which represents approximately 55% of the global population, and 65% of the global economic activity, is currently not on track to achieve any of the SDGs.

- Canada’s participation in UCLG is guided by the Federation of Canadian Municipalities who acts as the Secretary General for the North American section. Active participants with dedicated memberships include the cities of Montreal, Toronto and Kitchener. Metro Vancouver is a member of the UCLG World Council – one of two UCLG governing bodies and occupied by the Chair of the Metro Vancouver Board.

- Chair Dhaliwal represented Metro Vancouver at the World Congress and presented on two panels *Mayors for the Future – Climate Change and Climate Action – Perspectives from the North American Region*, along with the statutory meetings of the World Council and General Assembly.

- An area for further discussion was a meeting with Metropolis and the City of Montreal. While a member of UCLG, Metropolis is also the leading association that brings together the governments of urban agglomerations worldwide and provides a platform where metropolises address a wide range of local and global issues – issues similar to and in alignment with Metro Vancouver goals and objectives. Metro Vancouver has received an invitation from the Metropolis Secretary General to consider a membership and staff are following up.
2nd World Congress on Climate Change - September 26-28, 2019, Berlin, Germany

- The 2nd World Congress on Climate Change was a gathering of approximately 60 climate change researchers and professionals with 33 presentations and 18 scientific posters.
- The focus of the Congress was primarily on the impacts that have been observed and adaptation to cope with the current and projected impacts.
- The climate change impacts included local climate changes, droughts, extreme temperatures and urban heat islands, increasing storm strengths, flooding, sea level rise, degraded air quality, negative public health impacts, loss of biodiversity, and challenges to urban areas.
- The adaptation measures included engineered flood management, changes to agricultural practices, monitoring and warning systems for extreme weather events, using historical knowledge of indigenous peoples, and carbon capture and sequestration technologies. Youth engagement and funding were also important topics.
- Director Carr participated in the World Congress and was a keynote speaker on day two, September 27.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
International events attended in 2019 were undertaken within the approved international event general government operating budget for 2019 totaling $161,200.

CONCLUSION
This report brings forward an update on 2019 International Events attended as part of the Leadership and Engagement program. The Leadership and Engagement program aims to promote Metro Vancouver in a leadership role and provides opportunity for engagement and continuous improvement in the advancement of organizational goals and priorities.