Climate Action Committee Meeting
May 25, 2020

On-Table Item(s)

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Date</th>
<th>Item No.</th>
<th>Item Name</th>
<th>Reason For On-Table Distribution</th>
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<tbody>
<tr>
<td>Presentation</td>
<td>May 25, 2020</td>
<td>4.1</td>
<td>Federal Government and Tree Planting Initiative</td>
<td>Received after agenda distribution</td>
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<tr>
<td>Presentation</td>
<td>May 25, 2020</td>
<td>4.2</td>
<td>Climate Action Amid COVID-19</td>
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<td>Presentation</td>
<td>May 25, 2020</td>
<td>4.3</td>
<td>Climate Action Plan Update</td>
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<td>Document</td>
<td>May 22, 2020</td>
<td>4.4</td>
<td>Climate Action Award</td>
<td>Received after agenda distribution</td>
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</table>
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Background

The Liberal government will:

• launch an ambitious program to plant two billion trees over ten years, as part of a $3 billion effort to deploy natural climate solutions;

• take concrete action to conserve and restore Canada’s forests, grasslands, agricultural lands, wetlands, and coastal areas;

• support about 3,500 seasonal jobs in tree planting;

• help cities expand and diversify their urban forests; and

• protect Canada’s trees from infestations, and help rebuild our forests after a wild-fire.

Challenges

• Growing seedlings
• Keeping count of the trees planted
• Locations of planting across Canada
• Capacity of tree planters
• Tree species
• Maintenance of planted trees
• Tracking of carbon sequestered
• Wildfire destruction replanting taking precedence
Opportunities

• Increased jobs – skilled / students etc.
  • Planting and growing seedlings
• Sequestering carbon to help reach local, provincial, national targets
• Habitat for species
• Better air quality
• Temperature regulation
• Flood management

Resources
https://www.fpac.ca/two-billion-trees-considerations-for-a-successful-federal-tree-planting-program/
Climate Action Amid COVID-19
Background

- Vulnerable populations
- Economic activity
- Jobs
- Critical and non-critical services
- Environment

Messaging from our Leaders

<table>
<thead>
<tr>
<th>Provincial</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommit to putting CleanBC at the centre of our recovery through:</td>
<td>When the recovery begins, Canada can build a stronger and more resilient economy by investing in a cleaner and healthier future for everyone including:</td>
</tr>
<tr>
<td>• Support rural and remote communities</td>
<td>• Budget for net-zero emissions by 2050 plan</td>
</tr>
<tr>
<td>• Partnerships with indigenous peoples</td>
<td>• Support job transition from oil patch</td>
</tr>
<tr>
<td>• Deliver support and resources for health care workers</td>
<td>• Clean up abandoned oil wells</td>
</tr>
</tbody>
</table>

the pandemic has created an opportunity to rebuild a better province based on the province’s existing climate action plan, CleanBC. | The plan is picking up from where the government’s economic strategy was headed before COVID-19. |
### Building Opportunities

<table>
<thead>
<tr>
<th>Area</th>
<th>Opportunity</th>
</tr>
</thead>
</table>
| New Construction  | • Encourage new, affordable housing and buildings that are energy efficient and zero emissions  
                     • Invest in bridging the gap of operational affordability of zero-emissions/renewable energy systems  
                     • Encourage renewable energy systems where appropriate  
                     • Encourage use of low-carbon building materials  
                     • Encourage the re-use and recycling of building materials  |
| Existing Buildings| • Upgrading the energy systems in existing buildings to be zero-emissions  
                     • Upgrading the envelope in existing buildings to be more energy efficient & airtight  
                     • Encourage renewable energy systems where appropriate  
                     • Invest in bridging the gap of operational affordability of zero-emissions/renewable energy systems  |
| Financing         | • Consideration of Property Assessed Clean Energy financing, including commercial buildings  
                     • Green banks  
                     • Rebates with conditions of zero-emissions/resilience  |
| Renewable Energy  | • Encouraging, where appropriate, district energy systems and on-site renewable energy systems  |

### Transportation Opportunities

<table>
<thead>
<tr>
<th>Area</th>
<th>Opportunity</th>
</tr>
</thead>
</table>
| Active Transportation | • Converting road space to improve safety and physical distancing. (e.g. pedestrian priority zones, greenways etc.)  
                           • This may create more space for businesses and help them reopen under new protocols  
                           • Invest in active transit amenities (e.g. repair stations, connections to transit, showers/washrooms, safe storage, infrastructure sharing etc.)  |
| Transit          | • Federal investments in transit agencies to avoid further cuts to transit service  
                           • Dedicated transit lanes for key routes  |
| Zero Emissions Vehicles | • Expand public EV charging network  
                                • Work with car share companies to electrify fleets  
                                • Assist strata’s in adding EV charging for residents  
                                • Provide information to businesses and encourage adding EV charging |
## Climate Resilience Opportunities

<table>
<thead>
<tr>
<th>Area</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Planting</td>
<td>• Aggressive tree planting and tree maintenance</td>
</tr>
<tr>
<td></td>
<td>• Tracking of carbon sequestered by trees</td>
</tr>
<tr>
<td>Green Infrastructure</td>
<td>• Investment and encouragement of green roofs, bioswales, rainwater harvesting etc.</td>
</tr>
<tr>
<td>Coastal Flooding</td>
<td>• Sea level rise adaptation planning</td>
</tr>
<tr>
<td></td>
<td>• Community education and preparedness</td>
</tr>
<tr>
<td>Vulnerable Populations</td>
<td>• Neighbourhood resilience strategies</td>
</tr>
<tr>
<td></td>
<td>• Community education and preparedness</td>
</tr>
<tr>
<td></td>
<td>• Vulnerability mapping</td>
</tr>
<tr>
<td>Ecosystem Restoration</td>
<td>• ESA management</td>
</tr>
<tr>
<td></td>
<td>• Parks enhancements to prepare for extreme heat and facilitate social distancing</td>
</tr>
<tr>
<td></td>
<td>• Daylighting creeks</td>
</tr>
<tr>
<td>Training</td>
<td>• To deliver on any of the opportunities mentioned</td>
</tr>
<tr>
<td></td>
<td>• E.g. electric vehicle technicians, design and installation training for zero-emissions energy systems</td>
</tr>
</tbody>
</table>

## Resources

- **Pembina Institute** - [https://www.pembina.org/reports/green-stimulus.pdf](https://www.pembina.org/reports/green-stimulus.pdf)
- **FCM** - [https://covid.fcm.ca/resources](https://covid.fcm.ca/resources)
- **West Coast Environmental Law** – [https://www.wcel.org/blog/lets-build-bc-back-better](https://www.wcel.org/blog/lets-build-bc-back-better)
Climate Action Committee

May 25, 2020

Climate Action Plan Update
Climate Change and Emerging Infectious Disease

Photo Source: The Economist

Port Moody’s Climate Objective

Carbon Neutrality by 2050

Technically achievable but pushes the limits
Requires mix of tools, partnerships, trial-and-error
Relies on action from EVERYONE
Climate Action Plan Development Timeline

Engagement
May 2019
- Determine scope
- Establish project team
- Secure funding
- Develop engagement plan

Engagement
Nov 2019
- Build emissions inventory
- Risk & vulnerability assessment
- Action planning
- Develop goals and targets
- Scenario modelling
-Draft and review Plan
- Implementation analysis
- Seek Plan adoption

We Are Here

Phase 1
Fall / Winter 2018

Phase 2
Spring / Summer 2019

Phase 3
Fall 2019

Phase 4
Winter / Spring 2020

Phase 5
Summer 2020

Risk and Vulnerabilities Assessment Results

<table>
<thead>
<tr>
<th>ID</th>
<th>Impact Statement</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk Total</th>
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<tbody>
<tr>
<td>1</td>
<td>Increased Interface fire risk: could damage infrastructure, disrupt service, displace people</td>
<td>5 5</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>Insurance challenges due to prolonged recovery</td>
<td>5</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Shoreline habitat squeezed out by rising waters and hardened shorelines</td>
<td>5 5</td>
<td>3 5</td>
<td>19.25</td>
</tr>
<tr>
<td>4</td>
<td>Increased shoreline erosion negatively impacts both the aquatic environment and shoreline public amenities</td>
<td>5 5</td>
<td>3 5</td>
<td>19.25</td>
</tr>
<tr>
<td>5</td>
<td>Increased strain on emergency services</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Increased demand on resources during times of response/recovery from events</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>Increased impacts to urban trees and green space resulting in increased resource needs and decreased public amenity</td>
<td>6</td>
<td>3</td>
<td>18</td>
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<tr>
<td>8</td>
<td>Increased landslide risk due to changing rainfall patterns: could damage infrastructure, disrupt service, displace people</td>
<td>5</td>
<td>3 5</td>
<td>17.5</td>
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<tr>
<td>9</td>
<td>Increasing health impacts and shelter needs for the homeless population during long stretches of inclement weather</td>
<td>5 5</td>
<td>3</td>
<td>16.5</td>
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<tr>
<td>10</td>
<td>Sanitary pump station function impacted due to rising water levels, site flooding and saltwater intrusion</td>
<td>5 5</td>
<td>3</td>
<td>16.5</td>
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<tr>
<td>11</td>
<td>Flooding in low lying areas could displace people and disrupt service</td>
<td>5</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>12</td>
<td>Decreased durability of infrastructure will shorten lifespans and require increased maintenance</td>
<td>5</td>
<td>3</td>
<td>15</td>
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<tr>
<td>13</td>
<td>Increased stress on native species resulting in shifting species ranges and potential loss of biodiversity</td>
<td>5</td>
<td>3</td>
<td>15</td>
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<tr>
<td>14</td>
<td>Overwhelmed drainage infrastructure due to heavy rainfall increases urban flood risk</td>
<td>5</td>
<td>3</td>
<td>15</td>
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<tr>
<td>15</td>
<td>Gradual inundation of low lying land along the coast over time due to sea level rise</td>
<td>5</td>
<td>2</td>
<td>10</td>
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### Climate Action Plan Focus Areas

<table>
<thead>
<tr>
<th></th>
<th>Mitigation</th>
<th>Adaptation</th>
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<tbody>
<tr>
<td>Organization - wide</td>
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<td>Human Health</td>
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<td>Land Use &amp; Growth</td>
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<tr>
<td>Management</td>
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### What’s in the Plan
Total 2016 emissions = 103,000 tonnes of CO₂e

Total 2016 emissions = 1,830 tonnes of CO₂e

Port Moody Greenhouse Gas (GHG) Emissions Forecast

- Federal vehicle regulations
- BC Electric vehicle regulation
- BC Renewable fuel regulation
- BC Building Code
- BC Renewable natural gas regulation
- Mode shift 40% walk, bike, transit by 2030
- Accelerate EV adoption (40% by 2030)
- Zero emissions transport by 2050
- Accelerate to Step Code 5 by 2030
- Zero emissions buildings 100% by 2050
- Convert 100% oil, propane to heat pump by 2030
- Zero waste

Remaining Emissions
- Provincial targets
- Emissions x Population Growth
- Port Moody BAU
Organization-Wide Actions

- Develop policy and procedures to embed climate mitigation and adaptation considerations throughout day-to-day City business.
- Review existing City regulations and initiatives with a climate lens
- Integrate climate budgets in the municipal budget process.

Natural Environment

- Develop climate resilient landscaping strategies for public lands
- Develop a green infrastructure policy and program
- Implement strategies to protect, restore, and connect Environmentally Sensitive Areas city-wide.
- Develop and regularly update the invasive species management program
- Develop an urban forest management strategy
- Continue to increase public awareness and engagement with environmental programs
- Continue to partner with local stewardship groups
- Develop and implement a natural assets management plan with consideration of a carbon budget.
Infrastructure

- Work toward water usage metering on all properties through a phased program.
- Incorporate climate change considerations into the City's water distribution and wastewater collections systems.
- Incorporate climate change considerations into integrated stormwater management process and planning.
- Implement effective utility management principles for the management of the water distribution and wastewater systems (e.g. municipal metering of sanitary, effective utility management principles).
- Incorporate climate risks into asset management planning.
- Enhance public engagement and education on water conservation and flood preparedness.

Emergency Response and Human Health

- Ensure City departments are adequately staffed and equipped to respond to extreme weather events.
- Access grants to support emergency preparedness and ensure City financial reserves are consistently available in the case of extreme events.
- Identify and prepare public properties to act as emergency support centres as needed.
- Develop an extreme weather response plan with a focus on supporting the most vulnerable populations.
- Continue to inform and facilitate community education about preparedness across hazards, and build stronger connections with community associations and businesses with the aim of improved preparedness for extreme weather events.
- Build partnerships and collaborate on connecting those most vulnerable to the impacts of climate change to available services (e.g. access to inclement weather shelters).
### Land Use and Growth Management

- Encourage density and mixed-use neighborhoods around transportation hubs through the Official Community Plan and development applications.
- Create and implement a policy to encourage development of complete, compact communities that enable the residents’ easy access to “daily needs”.
- Require developers to include comprehensive transportation demand management (TDM) strategies in proposals for new large development projects.
- Apply a climate risk lens to a review of existing hazard mapping and associated Development Permit Areas.
- Target park acquisition on an ongoing basis to support the Parks and Recreation Master Plan recommendations with a climate lens.
- Improve standards for erosion and sediment control for new developments and City projects.
- Develop a sea level rise strategy to assess and respond to coastal flooding, coastal squeeze, shoreline erosion and inundation.
- Continue to work with the Fraser Basin Council on the Lower Mainland Flood Management Strategy and public education on flood risk.

### Buildings

- Perform comprehensive climate audits on all civic facilities and prioritize upgrades where feasible and highest risk.
- Develop and implement a green buildings policy for the construction and renovation of City-owned facilities.
- Develop a strategy and adopt the BC Energy Step Code in advance of the provincial timeline.
- Revise the City’s Sustainability Report Card to include performance measures to reduce operational and embodied GHG emissions and climate risks.
- Develop and implement a green buildings rezoning policy for development applications.
- Develop a resilient, zero-emissions plan for all existing buildings that includes addressing indoor air quality, and climate risks where possible.
- Develop a resilient, zero-emissions plan for all new that includes addressing indoor air quality and climate risks where possible.
- Initiate/continue discussions with federal and provincial governments to advocate for authority, financing tools, benchmarking, and other policies essential for achieving zero emissions buildings.
- Explore opportunities for partnerships and financing strategies to support residents and business owners to address climate action for buildings.
- Explore the feasibility of creating a renewable energy hub where the City could generate or partner with organizations to produce renewable energy, and use this energy to power buildings and equipment.
## Transportation and Mobility

- Conduct a utilization assessment of the City’s fleet and identify opportunities to increase efficiency and reduce GHG emissions.
- Accelerate and fund implementation of the Master Transportation Plan projects to reduce GHG emissions by 2030, including accelerating alternative transportation goals, and initiatives focused on transit, transit-oriented development, and paths and trails.
- Develop a community zero-emissions mobility strategy.
- Identify and implement policies to support the highest and best use of City-owned parking and curb space.
- Develop business license requirements and regulations through street and traffic bylaws that support low-emission ride-hailing services and autonomous vehicles.
- Consider creating pedestrian priority zones in key areas.
- Work with Port Moody schools to engage in School Travel Planning.
- Advocate for significant policy changes that reduce emissions including the Province (Right-to-Charge legislation), Metro Vancouver (tolls, congestion charging, TDM), TransLink (zero emission fleet), ICBC (alternative insurance), car-sharing services and the Port of Vancouver.
- Create public education campaigns to increase awareness of zero-emission transportation, including active options and zero-emission vehicle options.

## Waste Reduction and Management

- Develop a zero-waste strategy for City facilities and City events.
- Develop a community- and commercial-focused zero-waste strategy.
- Initiate/continue discussions with Metro Vancouver to advocate for initiatives and policies to reduce waste, increase capture of methane at landfills, and increase reporting and awareness on waste generation.
- Work with partner organizations on public education campaigns to increase awareness of waste reduction tools, programs and information.
Leading up to 2030…

**Adding/replacing**
~1,000 passenger and commercial vehicles with electric models per year

**Residents walk cycle or take transit for almost 1/2 of total trips taken**

**Retrofitting** ~150 residential and ~8 commercial buildings per year to have zero emissions heating and hot water

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**This Also Looks Like**

**All new buildings** are net-zero energy ready (highest Step Code steps) by 2030

**All new** heating and hot water systems generate zero emissions starting in 2025

**Transitioning** ~70 homes a year off of oil heating and propane by 2030

**Zero waste** is sent to the landfill by 2050
Big Messages

By 2050…

• Every new building needs to be zero carbon
• Every existing building needs to be zero carbon
• Every new or replacement vehicle needs to be zero emissions
• Majority of the travel in our community needs to be by active methods or public transit
• Nothing is sent to landfills

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>No. of Actions</th>
</tr>
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<tbody>
<tr>
<td>Organization wide</td>
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<tr>
<td>Natural Environment</td>
<td>8</td>
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<tr>
<td>Infrastructure</td>
<td>6</td>
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<tr>
<td>Emergency Response &amp; Human Health</td>
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<tr>
<td>Land Use &amp; Growth Management</td>
<td>8</td>
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<td>Buildings</td>
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<tr>
<td>Transportation &amp; Mobility</td>
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<tr>
<td>Waste Reduction &amp; Management</td>
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</tbody>
</table>

**Total actions**: 54

**Action Status**

- 40 planned actions (74%)
- 13 Underway (24%)
- 1 Completed (2%)
Implementation and Funding

• Pending Council endorsement of the CAP, staff will report back with a 2-year implementation plan:
  ➢ Priority actions for first 2 years
  ➢ Staffing needs
  ➢ Detailed costs (e.g. actions, staffing, external funding opportunities etc.)

Next Steps

❖ Seek Council endorsement of the draft Climate Action Plan
  • June 2020

❖ Prepare Implementation and Funding Strategy
  • Seek Council endorsement in Fall 2020

❖ Develop and initiate ongoing tracking and reporting
  • Fall/Winter 2020
CLIMATE ACTION AWARD

PURPOSE

The Climate Action Award is presented to recognize deserving people, schools, organizations, and businesses that advance the goals and objectives of the City of Port Moody’s Climate Action Plan.

CRITERIA

The Climate Action Award is given to an individual, community group, business, or school that advances the Climate Action Plan’s goals and objectives or awareness in the City of Port Moody. We evaluate nominees based on their activity in one or more of the following areas:

❖ Greenhouse Gas Emission Reduction/Elimination (eg. Home energy retrofit)
❖ Renewable Energy Transportation (eg. Car-free family)
❖ Climate Change Resilience (eg. Passive house, flood-proof house, food security)
❖ Renewable Energy Demonstration In Use
❖ Volunteerism and Engagement
❖ Climate Change Education and Outreach
❖ Other projects or activities that may align with the Port Moody Climate Action Plan

The Port Moody Climate Action Committee accepts and reviews nominees. The project or initiative must take place in Port Moody and can be initiated by an individual, organization or business. Nominees do not need to be residents of Port Moody.

AWARD

A medallion designed by a local artist.

The Climate Action Award Subcommittee recommends:

THAT the attached Terms of Reference for the Climate Action Award be forwarded to Council for approval;

AND THAT the Environmental Award be amended to remove the following: Greenhouse Gas Emission Reduction, Energy Efficiency and Climate Change Resilience.