



AGENDA INFORMATION	
<input checked="" type="checkbox"/> Regular Meeting	Date: <u>January 24, 2022</u>
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Dept. Manager	 GM/ Director	 CAO
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## The District of North Vancouver REPORT TO COUNCIL

January 12, 2022

File: 13.6770/Climate Change/File

**AUTHOR:** Caroline Jackson, Manager, Climate Action, Natural Systems and Biodiversity

**SUBJECT:** Climate and Biodiversity Initiatives Update

### RECOMMENDATION:

THAT Council receive the Climate and Biodiversity Initiatives Update report for information.

### REASON FOR REPORT:

This report provides an overview to Council on the District's ongoing initiatives to advance climate action and ecological health as a corporation and in the wider community.

### SUMMARY:

In 2019, Council declared a climate and ecological emergency and called for transformative action. A new Climate and Biodiversity Office was established to build upon the District's solid foundation of environmental leadership and facilitate greater coordination across the organization and beyond. This report provides an overview of key actions, policies, and programs underway across six pathways: corporate leadership, low carbon buildings, low carbon transportation, zero waste, ecosystem health, and climate adaptation.

### BACKGROUND:

The District has long been a municipal leader in taking action to protect the natural environment. Key initiatives over the years have included the District's 1993 Environmental Protection and Preservation Bylaw, one of the first of its kind in Canada, adoption of the Natural Step Framework in 2004, the 2011 Official Community Plan and the 2012 Parks and Open Space Strategic Plan. More recent policy includes the 2017 Climate Change Adaptation Plan, guiding our work in increasing the District's resilience to climate change and the 2019 Community Energy and Emissions Plan which outlines policies and actions to achieve the District's targets of a 45% reduction in emissions by 2030 and zero emissions by 2050. The District has a history of taking action to reduce emissions in our own facilities and fleet, guided by our Strategic Energy Management program. The recent 2021 Targeted OCP Review Action Plan focused on four key areas: housing, climate, transport, and economy and provided the District with the opportunity to take stock of progress over the past decade and

to further engage with the community to chart a course forward that integrates social equity and climate action into key policies and programs.

### **Climate and Ecological Emergency Declaration**

In 2019, following the release of the Intergovernmental Panel on Climate Change (IPCC) *Special Report on Global Warming* and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services *Global Assessment Report on Biodiversity*, Council declared a climate and ecological emergency and called for transformative change to be incorporated into strategic and financial planning processes.

Subsequent to the climate and ecological emergency declaration, Council directed staff to update corporate practices and policies to align with IPCC climate science, and adopted a new community climate action plan, "Impact 2050: Community Energy and Emissions Plan", which outlined key policies and actions for reducing emissions and increasing carbon sequestration across four sectors: transportation and land use, buildings and energy, solid waste, and urban forestry. Council has further directed staff to develop new construction standards to limit the use of fossil fuels in new construction, and subsequently updated the District's Energy Step Code requirements with low carbon standards for all new homes and commercial buildings. These low carbon standards limit the use of fossil fuels for space and water heating, or "operational emissions". Council has further directed staff to provide policy recommendations for embodied carbon - accounting for the emissions associated with building material resource extraction, manufacturing, and transportation, and end of life disposal.

Council recently approved the North Shore Sea Level Rise Strategy, identifying actions to be taken over the long term by the District and our partners in working proactively to prepare for a one metre increase in sea levels by 2100 and create more resilient communities, cultural spaces, and infrastructure.

Ecosystem health and environmental protection initiatives have included adopting a policy to restrict the use of rodenticides (this has led to restriction and further policy development at the provincial level), a review of the District's policy for the management of trees on private property, and most recently Council direction to develop an overarching Biodiversity Strategy to coordinate the District's response to the ecological emergency.

Council has recently established a new Climate Action Advisory Committee to provide advice in the development and implementation of the above policies and programs.

### **ANALYSIS:**

The new Climate and Biodiversity Office was recently established and is working collaboratively across the organization to build upon the District's foundation of environmental leadership to accelerate the implementation of climate action and biodiversity targets, policies, and actions. The District's overarching goals are as follows:

- Reduce emissions as a corporation and in the wider community;
- Protect and enhance ecosystem health and biodiversity; and
- Improve resilience to climate change.

### **Approach**

The scale and urgency of addressing the climate and ecological emergency requires a focus on critical, well-coordinated actions over the next eight years (2022-2030). The general approach to this work is as follows:

1. Communicate and engage with staff and the broader community to create awareness and drive further action and ownership in the corporation and the community;
2. Provide accountability and transparency through metrics and reporting, integrated into existing reporting practices; and
3. Focus on people through an equity-centred approach striving to ensure that no one is left behind including traditionally disadvantaged groups.

### **Six Key Pathways**

The District's work in advancing climate action and ecosystem health is organized around six key pathways, as follows:

**Corporate Leadership.** The District's long standing Strategic Energy Management program, along with the Strategic Facilities Planning Framework and Asset Management Plans, are being used to establish defensible pathways towards achieving significant corporate energy use and emissions reductions well in advance of the broader community targets.

- The District Municipal Hall is currently undergoing a significant retrofit of its mechanical system, and a further retrofit of the Operations Centre is planned for 2022. Studies are underway to audit the remaining top emitting facilities for further reduction opportunities. Fleet electrification continues with 90% of the District's light duty fleet electric by the end of 2022.
- Following a pilot study, 100% of the District's paving projects are now completed using lower carbon warm mix asphalt, and staff are also piloting the use of 30% recycled asphalt pavement, using excess grindings from existing roads to reduce the use of virgin materials.
- District facilities staff are currently working with the Climate and Biodiversity office to pilot initiatives such as measuring embodied carbon from new construction projects. This work is helping to inform policy development currently underway in this regard.
- The District recently joined a number of other municipalities and other public and private sector property managers in participating in the Building Benchmark BC initiative, allowing us to share and compare the energy consumption of our facilities, thus increasing accountability and transparency.

**Low Carbon Buildings.** The District has implemented a number of initiatives to reduce energy and emissions in new and existing buildings.

- The District's low carbon construction standards, developed in partnership with the neighbouring City of North Vancouver and District of West Vancouver, came into effect on July 1, 2021, limiting the use of fossil fuels for building space heating and domestic hot water heating. Along with the new standards, administrative requirements included affixing a home energy label on or near the electrical panel, thus raising consumer awareness about home energy efficiency. Energy benchmarking requirements also were put in place for larger buildings, requiring

energy consumption to be disclosed to monitor energy and emissions over time. Staff have been focused on supporting builders and their energy advisors during this early implementation phase of the new bylaw.

- Staff are also advancing initiatives to reduce emissions in existing homes through the tri-municipal Jump on a Heat Pump program and associated Virtual Home Energy Audit Service, focused on supporting homeowners in making the switch towards low carbon heat pumps. Heat pumps provide cooling in the summer thus also increasing the community's resilience to more extreme summer temperatures.
- Council recently approved changes to our Fees and Charges bylaw to reduce electrical permit fees by 50% for solar installations. In 2021, a total of 18 permit applications were issued for solar installations.
- The District has partnered with EmpowerMe, an organization focused on delivering sustainable energy outreach to newcomers to Canada to reduce energy consumption, emissions, and costs.
- The District participated in the University of British Columbia's Sustainability Scholar program in hosting a scholar completing research on policy approaches to reducing embodied emissions in new construction. This work is informing policy development and staff will be bringing back further information to Council in this regard later in 2022.

**Low Carbon Transportation.** A number of initiatives are underway to reduce transportation emissions and congestion.

- Key actions include further investment in the District's active transportation network, supporting transit priority measures, focusing higher density development close to transit and services, and implementing a comprehensive transportation demand management program focusing on reducing congestion at schools and managing transportation in new developments and businesses.
- The North Shore e-bike share program launched in 2021, and Council has directed staff to explore the feasibility of incentives for the purchase of e-bikes, and to partner with the Province in piloting e-scooters. Further information will be brought forward to Council in this regard later in 2022.
- To support the transition towards electric vehicles, the District adopted a new Electric Vehicle Policy in 2021 requiring that 100% of all residential parking spaces in new developments be capable of providing Level 2 electric vehicle charging. A number of charging stations have been added at District facilities and staff have sought additional funding from senior levels of government to add additional public charging stations in key locations.

**Zero Waste.** Effectively taking action on climate and the environment involves supporting the transition from a linear take-make-waste model to a more circular economy where as much value is retained and recovered as possible by reusing, repurposing or recycling products and materials. Staff are advancing a number of initiatives in this regard.

- In September 2021, the District partnered with Earth Day Canada to convene a Hack-a-Thon focused on the issue of construction and demolition waste. A panel of experts was convened to discuss challenges and potential solutions. Staff are currently reviewing best practices, analysing permit data and identifying potential opportunities

to inform our policy approach to reducing waste in this sector and will be bringing forward further information to Council early in 2022.

- District staff continue to closely monitor developments in senior government regulations with respect to reducing the use of single use items. The federal government recently released draft regulations and the Province is expected to release regulations in spring 2022. Staff are currently in the process of developing an outreach and education initiative for local businesses in preparation for further single use item regulation and will be bringing forward a subsequent report to Council for consideration on this topic early in 2022.

**Healthy Ecosystems.** The District has advanced a number of recent initiatives to protect and enhance ecosystem health. Council has directed staff to develop a Biodiversity Strategy as an overarching strategy for protecting, enhancing, and restoring biodiversity and natural systems in the District, and further information will be provided to Council later this year.

- The District's policy to restrict rodenticide baits and recent advocacy led to a temporary province-wide ban on the sale and use of second-generation rodenticides and staff are supporting the Province's current work in conducting a science review and promotion of alternatives.
- The District is currently completing an Integrated Stormwater Management Plan that incorporates environmental and social values, land use planning tools, and infrastructure asset management plans to improve watershed health, and a number of recommendations identified during plan development are already being actioned.
- A recent Council workshop explored potential changes to the District's Tree Bylaw and the recent Urban Tree Canopy tree giveaway was enthusiastically supported by members of the community.

**Climate Adaptation.** A number of initiatives are underway to increase the District's resilience to climate change, guided by the District's 2017 Climate Change Adaptation Plan.

- Staff are working with our North Shore partners to implement the recently approved North Shore Sea Level Rise Strategy. A key action identified in the strategy is the integration of findings into community-wide flood management initiatives, including updating regulations to proactively respond to the potential impacts of sea level rise. Staff are initiating work on creation of a coastal Development Permit Area to guide development in areas potentially at risk from sea level rise.
- The District's Community Wildfire Protection program includes fuel treatments of high risk interface areas and proactive education and outreach to residents.
- The District's geohazard and flood management programs take a climate risk-informed approach to reducing risk from debris flows based on predicted 2100 year horizon rainfall events that have been incorporated into the District's engineering standards. Numerous culverts have been upgraded to manage future high intensity rain events, and a number of debris basins have been installed to manage debris flow caused by large storm events. Further information will be provided to Council regarding these programs later in 2022.
- The tri-municipal North Shore Emergency Management (NSEM) office is leading a number of emergency planning and preparedness initiatives to increase the community's resilience to climate change.

**Recent Highlights**

The District has received recognition for its work in a number of these areas. The District's work on rodenticides has led to regulatory action at the Provincial level, with the Province announcing a temporary Province-wide restriction on the use of second generation anti-coagulant rodenticides. The North Shore Sea Level Rise Strategy was awarded the B.C. Community Energy Association's Climate Action Award for Adaptation.

The recent retrofit to the District's Municipal Hall has to date resulted in a 40% savings in energy use and 50% reduction in greenhouse gas emissions. Similar retrofit work at the operations centre has reduced energy and emissions by 30%. The District's leading energy management work was recently featured at BC Hydro's province-wide Energy Management forum.

In December 2021, the District was awarded the fifth and final milestone in the Federation of Canadian Municipalities' Partners for Climate Protection Program, for its work in reducing corporate and community emissions. This is the highest recognition for climate action in the PCP program, and involves establishing an emissions inventory for corporate and community GHG emissions, setting reduction targets, creating and implementing climate action plans, and demonstrating progress.

Respectfully submitted,



Caroline Jackson,  
Manager, Climate Action,  
Natural Systems and Biodiversity

REVIEWED WITH:					
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office	_____	External Agencies:	
<input type="checkbox"/> Development Planning	_____	<input type="checkbox"/> Communications	_____	<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> Development Engineering	_____	<input type="checkbox"/> Finance	x	<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> Utilities	_____	<input type="checkbox"/> Fire Services	_____	<input type="checkbox"/> RCMP	_____
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<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Bylaw Services	_____		
<input type="checkbox"/> Review and Compliance	x	<input type="checkbox"/> Planning	_____		
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