

2017/2018

# BC Housing's Sustainability Plan



## *livegreen* plan

This *livegreen* Sustainability Plan provides linkages to the broader strategic priorities in BC Housing's corporate three-year Service Plan, and outlines how BC Housing manages its commitment to environmental and social responsibility while delivering housing programs and services.

BC Housing's sustainability targets and measures are outlined in this plan. Activities and results are reported in our annual [\*livegreen\* Sustainability Report](#) and the [Carbon Neutral Action report](#).

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This 2017/2018 update includes:

- > results for 2016/17 targets;
- > targets that were previously reported as 'to be determined'.

Other than these changes this three-year plan remains the same as when published last year.



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## Message from the CEO

BC Housing's new vision of serving as a trusted leader and partner in sustainable solutions for British Columbians is supported by our values and actions. This *livegreen* Sustainability Plan describes how we are working towards implanting our vision in the following three areas:

- ▶ Integrating sustainability into all levels of decision making
- ▶ Enabling innovation and housing excellence
- ▶ Leading by example to encourage others to embrace sustainability

This plan updates last year's *livegreen* plan and our three-year performance targets. Most of the plan remained unchanged. The most significant update is the adoption of new Green Buildings measure, which now aligns with the provincial long-term goals for making all new buildings net-zero energy ready. Working towards this long-term goal, provincially funded new social housing units will be required to meet the updated BC Housing Design Guidelines and Construction Standards, which include targeting the upper steps of the BC Energy Step Code. We also continue to increase energy efficiency in our existing stock and reduce greenhouse gas pollution from energy used for heating, electricity, fleet vehicles, office paper and commuting.

Our research and educational efforts are making green building technologies more accessible for the residential construction industry. Elsewhere, we're collaborating with Indigenous Peoples on a number of projects, including the development of a complete community at Riverview Lands. This means working with all stakeholders towards the creation of a community with a strong sense of belonging, preserving of cultural and natural resources, using of renewable energy, and other environmental, social and financial considerations.

This *livegreen* Sustainability Plan has set fresh targets for new construction, which now require that at least 40 percent of our projects be designed to a third-party sustainability standard such as Passive House, LEED, or other. We have also improved our quantification methodology, and set revised targets for the reduction of GHG emissions from our fleet vehicles.

I encourage you to take a closer look at our plans for the next few years in the pages ahead.



A handwritten signature in black ink that reads "Shayne Ramsay". The signature is fluid and cursive, written in a professional style.

**Shayne Ramsay**, CEO BC Housing

## About BC Housing

Our organization was created in 1967 to deliver on the Province's commitment to develop, manage and administer subsidized housing. This encompasses a wide range of housing options across British Columbia, and means that through partnerships, we are one of the the biggest developer of housing and among the largest landlords in the province.

As such, BC Housing works in conjunction with key partners including all levels of government, non-profit organizations, Indigenous communities, and industry. Our mandate also includes responsibilities for the administration of the Homeowner Protection Act, which strengthens consumer protection for buyers of new homes and in turn improves the quality of residential construction.

To learn more about BC Housing, visit our website at: [www.bchousing.org](http://www.bchousing.org)



## Mission and Vision

In 2016, BC Housing renewed its mission, vision and values, which now more explicitly reflect our commitment to sustainable housing.

### Our mission

Making a positive difference in people's lives and communities through safe, affordable and quality housing.

### Our vision

BC Housing serves as a trusted leader and partner in sustainable housing solutions for British Columbians.

## Acheiving our vision

### Our work along the housing continuum ensures:

- ▶ the most vulnerable have housing and support options that provide stability and maximize independence
- ▶ there are new approaches to create affordable and social housing
- ▶ people have full confidence in the quality of construction when purchasing a new home
- ▶ sustainable housing solutions are supported by excellence in service delivery and research, and take into account social, financial and environmental impacts

### Our work to support a strong housing sector involves:

- ▶ facilitating and supporting community partnerships
- ▶ enabling non-profit and Indigenous Peoples housing providers to have the capacity to transform and respond to housing needs in a changing environment
- ▶ providing a licensing system in which residential builders achieve a high bar of professionalism

# Our Sustainability Commitments

We recognize that all of our actions have impacts on local communities, ecosystems, and global processes. BC Housing’s sustainability policy has been in effect since 2010, and provides a framework for decision-making and planning.

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## Sustainability Principles

**OUR SUSTAINABILITY POLICY IS BASED ON ELIMINATING OUR CONTRIBUTIONS TO:**

**1**

Conditions that systematically undermine people’s capacity to meet their basic human needs (such as protection, subsistence, or identity)

**2**

The systemic increase of concentrations of substances extracted from the Earth’s crust (such as fossil fuels or heavy metals)

**3**

The systemic increase of concentrations of substances produced by society (such as plastics, PCBs, dioxins)

**4**

The systemic physical degradation of nature (such as overfishing, over-harvesting forests, or destroying habitats)

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\* Sustainability principles have been popularised by the international organization The Natural Step

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# The *livegreen* Strategy

BC Housing's *livegreen* strategy is guided by three pillars



## PILLAR 1

### Integrated Decisions

Integration of financial, social, and environmental considerations in planning and decision making

Integrated Decisions aims to consider sustainability at all levels of decision making. Progress is measured using social, environmental and economic indicators.



## Priorities

### 1. Support good sustainability choices in all business areas

BC Housing aims at reducing our environmental footprint through increases in efficiency, reductions in costs and engaging with others. This *livegreen* priority focuses on areas where BC Housing has direct control—specifically the management and administration of hundreds of social housing buildings, our offices, and our fleet vehicles across the province.

### 2. Identify and address gaps in full integration of sustainability into all business areas and activities

BC Housing's consistent 'triple bottom line' approach in construction projects, building management and procurement practices considers direct and indirect impacts on people and communities. BC Housing will continue to identify these opportunities in existing and new business areas, such as leading a partnership on the renewal of the Riverview Lands.



### Spotlight: Integrated Planning

#### DEVELOPMENT OF THE RIVERVIEW LANDS

In 2013, the Province of British Columbia mandated BC Housing to create a plan to renew Riverview Lands in the City of Coquitlam.

Over a two-year period (2014-15), BC Housing conducted an extensive stakeholder engagement process to inform the vision for the future of this historic site. One of the guiding principles for this visioning process was to ensure the balance of overall social, economic, environmental and Indigenous Peoples aspirations.

As the vision for Riverview is finalized, BC Housing will continue to engage all partners and stakeholders to ensure implementation of all guiding principles. For more information go to [www.renewingriverview.com](http://www.renewingriverview.com)

AREA	MEASURE	STAKEHOLDER GROUP	TARGETS				2016/17*
			2016/17	2017/18	2018/19	2030/31	RESULTS
<b>GHG Emissions: Office Paper</b>	Percentage reduction in GHGs from all office paper used by BC Housing (from 2005 baseline)	<b>Employees</b>	60%	65%	70%	80%	57%
<b>GHG Emissions: Fleet</b>	Percentage reduction in GHGs per km traveled from all fleet vehicles used by BC Housing (from 2016 baseline)	<b>Employees</b>	Establish Baseline	5%	5%	20%	Baseline Established
<b>Sustainable Procurement</b>	Percentage of tenders to suppliers that include sustainability in the evaluation criteria	<b>Suppliers, Contractors</b>	40%	45%	50%	75%	53%



## Planned Actions

### Paperless Initiative

BC Housing significantly reduced GHG emissions related to paper use in the last few years (57% reduction in 2016 against 2005 baseline).

- ▶ The paper reduction actions such as paperless meetings and default setting on printers will continue in 2017/18.
- ▶ Non-profit housing providers will be encouraged to use electronic means to exchange documents with BC Housing, and our employees will be engaged in reducing paper usage through reminders and prompts.

### Greening our fleet

BC Housing has been reporting on GHG emissions related to their fleet since 2010, and it is continuing to improve the reporting methodology.

- ▶ The Lower Mainland grounds and maintenance fleet are using a GPS fleet tracking system to reduce fleet mileage. Once this system is proven effective, it will be considered for vehicles in other parts of the organization and province.
- ▶ Efficient driving e-training will be promoted with all fleet vehicle drivers.

### Integrate sustainable objectives into procurement

Last year 53% of BC Housing tenders included sustainability criteria. The goal is to include sustainability criteria in all tenders where possible.

- ▶ Through the tendering process, BC Housing will engage with local social enterprises for more effective sustainable options.
- ▶ In 2017 an Aboriginal Procurement Policy will be implemented. It's main goal is to increase the amount of business that BC Housing performs with Indigenous Peoples businesses and/or individuals.

### Continue promotion of sustainability e-learning

- ▶ In 2015/16 BC Housing developed a one-hour 'Introduction to Sustainability' e-learning. This training facilitates a better understanding of how to integrate sustainability into all decision making across the organization. Opportunities to take the training will be communicated throughout the organization.

### Balance objectives for the future use of Riverview Lands

- ▶ BC Housing will continue to lead the process on the future use of Riverview Lands. This involves developing a master plan for the site that balances social, economic, environmental and Indigenous Peoples aspirations, while building a complete community.

\* For more details about results and actions taken please see 2016/17 *livegreen* Sustainability Report.





## PILLAR 2

# Housing Excellence

Innovation in the design, construction, renovation and management of housing

Housing Excellence aims to enhance sustainability innovation in the delivery, renovation and management of social housing, and to promote the quality and durability of housing construction and maintenance.



## Priorities

### 1. Create healthy communities through sustainable social housing

BC Housing has 60 housing projects currently registered with the CGBC that are built (or will be built) according to LEED Gold standard. BC Housing is also looking at other practices to reduce or eliminate greenhouse gas emissions related to energy use, while simultaneously improving the resilience of the building.

The 2016/17 year was a baseline year for a revised measure related to green buildings. Due to the recent implementation of the [BC Energy Step Code](#), we've modified the green building measure to align with the requirement of this code and our newly updated [BC Housing design Guidelines and Construction Standards](#). The BC Energy Step Code aims to create progressively healthier and more efficient buildings, with the ultimate goal of making buildings net-zero energy ready by 2032. The Code establishes a series of measurable, performance-based energy-efficiency requirements for constructions that builders can choose to build to. As of 2017 [BC Housing Design Guidelines and Construction Standards](#) require Step Code Level 4 for part 9 projects, and Levels 2-4 for part 3 projects, depending on the climate zone.

### 2. Reduce construction, renovation, and residential waste and pollution

The residential construction industry is one of the largest contributors to the province's economy — and a major contributor

to construction and demolition waste. BC Housing is working with industry partners to carry out new construction and renovation projects that minimize landfill waste.

BC Housing is also working with tenants to support residential waste reduction and diversion, including recycling kitchen scraps.

### 3. Innovation through research and partnerships

BC Housing supports innovation and sustainability through research and partnerships, to improve the quality of residential construction and address the needs of the social housing sector.

Through industry partnerships, we develop seminars and tools and share information on best practices in green technologies. The residential construction industry uses our publications extensively, and many are required texts for various education programs across Canada.

We also provide research and education grants to industry and consumer organizations, education providers and independent researchers through our Building Excellence Research and Education Grants Program.

In partnership with industry, government, First Nations, the non-profit sector and academia, BC Housing plans to expand industry knowledge of green building technologies, and explore factors related to housing affordability.



Photo: Rosalie's Village, Vancouver Island, a LEED certified building opened in March 2017

AREA	MEASURE	STAKEHOLDER GROUP	TARGETS				2016/17* RESULTS
			2016/17	2017/18	2018/19	2030/31	
<b>GHG Emissions: Buildings</b>	Percentage reduction in GHG emissions from all buildings owned or leased by BC Housing, including directly managed public housing (from 2005 baseline)	<b>Social housing tenants, employees, industry partners</b>	20% or more	20% or more	20% or more	40% or more	31%
<b>Green Buildings (Measure revised in 2017)</b>	Percentage of provincially sponsored affordable housing units designed to meet the energy and sustainability targets defined in the BC Housing Design Guidelines and Construction Standards	<b>Social housing tenants, non-profit housing providers, residential construction industry, green building industry</b>	Establish baseline	40%**	45%	100%	Baseline established
<b>Waste Management</b>	Percentage of construction, redevelopment, or retrofit waste diverted from landfills	<b>Construction industry, local communities, non-profit housing providers</b>	80% Lower Mainland and Greater Victoria; 60% elsewhere	80% Lower Mainland and Greater Victoria; 60% elsewhere	85% Lower Mainland and Greater Victoria; 65% elsewhere	90% Lower Mainland and Greater Victoria; 75% elsewhere	78% Lower Mainland and Greater Victoria, 62% elsewhere
<b>Residential Construction Research and Education</b>	Published research report conducted with key stakeholders	<b>Buyers of new homes, homeowners residential construction industry</b>	At least one major research project published	At least one major research project published	At least one major research project published	At least one major research project published	5 major research projects published



## Planned Actions

### Reducing GHG emissions in buildings

In 2016, BC Housing reported a 31% decrease in GHG emissions from buildings that we own or lease (against 2005 baseline). While this is a significant achievement, BC Housing will continue to look for opportunities to reduce our emissions, and to help non-profit housing providers do the same.

- ▶ BC Housing will evaluate overall building energy use at a portfolio of new buildings. The buildings will be selected based on building energy performance index, location,

timing and availability of staff to support the assessment teams. The information collected from these audits will be used to prioritize capital upgrade needs for energy and GHG consumption reductions, and to better inform building staff about building operations and maintenance.

- ▶ BC Housing will continue to partner with the BC Non-Profit Housing Association and BC Hydro to increase the energy efficiency of social housing developments through the Energy Efficiency Retrofit Program. This program encourages housing providers to undertake small-scale energy retrofit projects and retain a portion of the energy savings. It provides funds to assist housing providers to make a variety of energy upgrades to enhance tenant comfort and safety, realize ongoing energy savings, and take action to reduce GHG emissions.

\* For more details about results and actions taken please see 2016/17 *livegreen* Sustainability Report.

\*\* Both funded and financed projects through BC Housing development programs are included in the target. BC Housing Design Guidelines and Construction Standards apply to all projects with a significant degree of provincial funding. For the remaining projects with housing partners BC Housing recommends integration of maximum sustainability considerations in the project.

- ▶ In 2017, BC Housing will strive to ensure most of our renovation projects include energy modeling and Energy Conservation Measure (ECM) development in the design portion.
- ▶ In 2017, BC Housing plans to begin a pilot project to explore the use of new and emerging construction technologies that are cost-effective and environmentally sustainable. BC Housing will also identify and undertake a Passive House pilot project.
- ▶ BC Housing will continue implementing the Energy Conservation Assistance Program with BC Hydro and FortisBC for all group homes across the province. This program helps residents implement energy-saving measures.
- ▶ BC Housing will investigate opportunities to incorporate “energy and GHG savings potential” as a factor in prioritizing new projects. BC Housing will also consider the Facility Condition Index of existing social housing in planning activities.

### Development of new housing

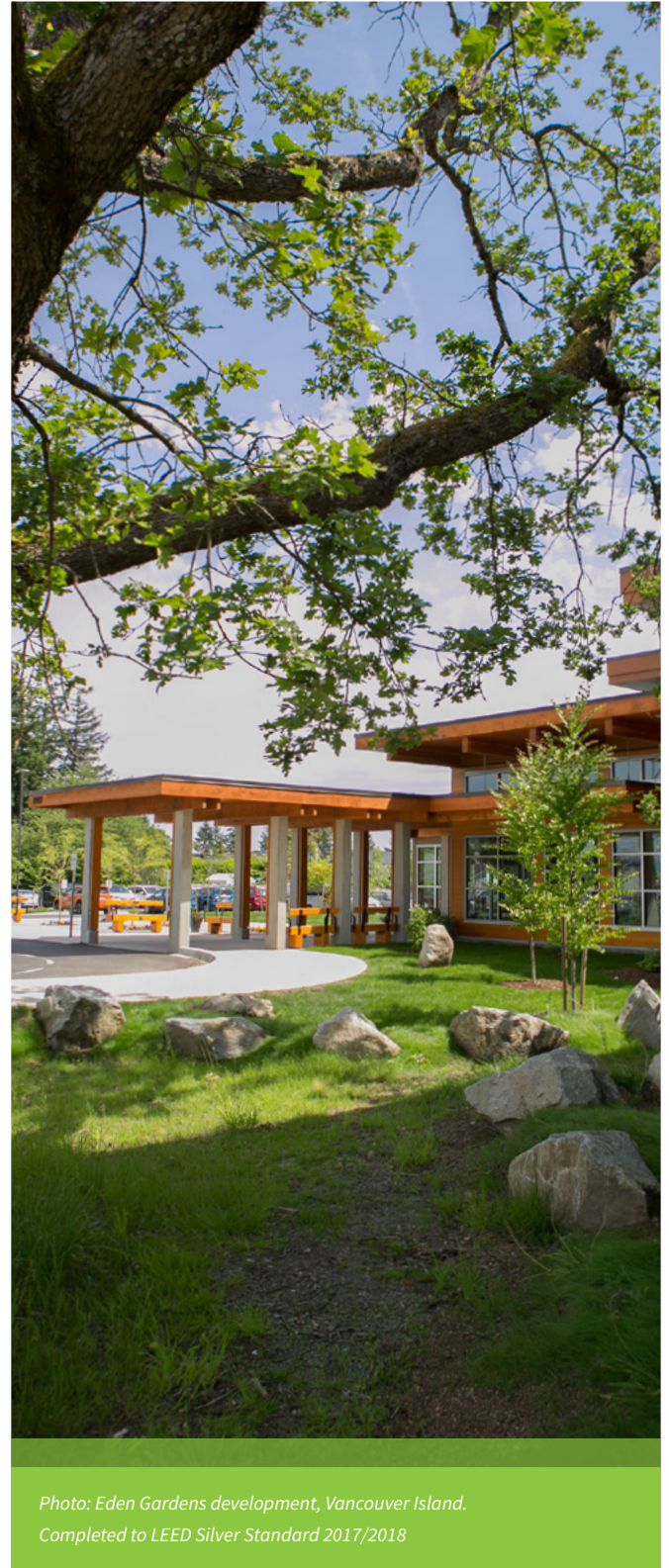
BC Housing is developing provincially sponsored social housing to meet high standards of environmental sustainability, including low GHG emissions. New guidelines are being developed to incorporate enhanced standards in the construction of new housing.

### Divert waste from landfills

BC Housing will develop an educational framework on construction and demolition waste management education, for employees and non-profit partners. BC Housing is also working on a plan to educate site staff, tenants and contractors at directly managed sites about new regulations regarding recyclables and food scraps.

### Start implementation of climate change adaptation framework

Vulnerable populations—including those who live in social housing are most at-risk during extreme weather events (such as extreme heat, cold or heavy rain). Gradual changes related to changing climate such as rising sea levels also have the potential to affect certain populations. BC Housing will start implementation of the climate adaptation framework for social housing in B.C.



*Photo: Eden Gardens development, Vancouver Island.  
Completed to LEED Silver Standard 2017/2018*



### PILLAR 3

## Change Agent

### Guiding and supporting others in taking actions towards sustainability

Change Agent aims to make BC Housing a sustainability leader by positively engaging a wide range of clients and partners toward sustainability. BC Housing has significant opportunities to lead by example, share experiences, and encourage others to adopt sound sustainability practices. This is largely done in collaboration with partners, stakeholders and subject matter experts.



## Priorities

### 1. Share best practices, tools and resources to encourage and enable our strategic partners to make more sustainable choices

Extensive experience in the housing sector places BC Housing in a unique position to be a positive influence throughout the province and beyond. BC Housing is committed to engaging and sharing knowledge of best practices; as well as, providing tools and resources to advance knowledge on sustainable housing and guide positive change.

### 2. Encourage sustainability awareness and action among social housing tenants

Opportunities and responsibilities in promoting sustainability and creating healthy communities go beyond physical buildings. BC Housing's sustainability programs help tenants save on their utility costs and enjoy healthier indoor environments offered by green buildings. Our programs also connect people with community and neighbourhood support services such as food or recreation programs.

### 3. Empower employees to make good sustainability choices in the workplace, the community and at home

BC Housing has approximately 650 employees across British Columbia. For many years our *livegreen* Employee Council has promoted the awareness of sustainability issues in the workplace, at home, and in the community.

### 4. New Priority: Relations with Indigenous communities

BC Housing has an ongoing partnership with the Aboriginal Housing Management Association related to the administration of Aboriginal social housing.

In 2015, BC Housing achieved gold level certification in Progressive Aboriginal Relations (PAR) for our various housing programs and initiatives that support Aboriginal communities. The certification program by the Canadian Council for Aboriginal Business (CCAB) awards corporate performance at the bronze, silver and gold levels in four areas: employment, community investment, business development, and community engagement.

Other work and successes in this area includes:

- ▶ Delivery of housing maintenance training programs to Indigenous Peoples and non-Indigenous Peoples housing providers throughout B.C.
- ▶ The creation of the Aboriginal Relations Advisor staff position within our Executive Office in 2015.
- ▶ Ongoing training for employees related to working effectively with Indigenous Peoples.
- ▶ The ongoing development of a more detailed strategy and measures related to strengthening relationships with Indigenous Peoples communities.

AREA	MEASURE	STAKEHOLDER GROUP	TARGETS				2016/17* RESULTS
			2016/17	2017/18	2018/19	2030/31	
<b>Employee Engagement on Sustainability</b>	Percentage of employees who indicate they feel supported by BC Housing to make good sustainability choices at work and at home	<b>Employees and their families and communities</b>	75%	77%	80%	over 80%	83%
<b>Leadership in Sustainability and Residential Construction</b>	Numbers of hours of training related to sustainable building practices offered to the residential construction industry	<b>Construction industry, Homebuyers</b>	4,500hrs	4,500hrs	4,500hrs	4,500hrs	5,347hrs
<b>Tenant Engagement on Sustainability</b>	Percentage of tenants who indicate they have been involved in a <i>livegreen</i> activity	<b>Public housing tenants</b>	8%	10%	15%	50%	8%
<b>GHG Emissions: Employee Commuting</b>	Percentage reduction in GHG emissions from employee commuting (emissions per employee from 2009 levels)	<b>Employees</b>	5%	10%	10%	25%	-3%



## Planned Actions

### Research and Education

- ▶ BC Housing's Building Excellence Research and Education Grants Program will continue to support research and education that improves the quality of residential construction and enhances consumer protection.
- ▶ 'Building Smart' seminars will continue to be delivered to licensed residential builders and industry stakeholders on topics related to energy efficiency and sustainability. An enhanced delivery model for Building Smart seminars will also be developed.
- ▶ As part of the Local Energy Efficiency Partnerships (LEEP) program, we are developing several demonstration videos that will be completed in 2017. These videos will show builders and trades that high levels of energy efficiency can be achieved using currently available materials and techniques.

### Provide training to Indigenous Peoples

- ▶ BC Housing will implement a pilot project with the Squamish Nation on skills training, asset management training, and homeowner education.

### Engage tenants in making sustainable choices

- ▶ BC Housing will continue engaging tenants to recycle at all directly managed sites in the Lower Mainland and Vancouver Island. A communication and engagement plan for site staff, tenants and contractors will be developed for all the sites with organic waste diversion programs.



*Photo: Our continued research and education efforts ensure that industry professionals have the knowledge to improve residential construction*

\* For more details about results and actions taken please see 2016/17 *livegreen* Sustainability Report.



Photo: Employees participate in the 2016 Great Canadian Shoreline Clean Up

### Support non-profits in sustainability

- ▶ We will create partnerships with the BC Non-Profit Housing Association and the Aboriginal Housing Management Association, to engage social housing tenants in sustainability.

### Enhance technology to support teleworking

- ▶ Enhancements will be made to support teleworking for employees, including increasing bandwidth and upgrading videoconferencing systems.

### Support employee engagement

In 2017/18, the *livegreen* Employee Council will create campaigns to promote sustainable practices among employees, including:

- ▶ Great Canadian Shoreline Cleanup – Employees will participate in cleaning up the shoreline as part of the ‘Community Connections’ employer supported volunteerism program.
- ▶ Earth Day celebrations with our partners and tenants
- ▶ Meatless Mondays campaign and competition

The new *livegreen* Employee Council’s plan was developed in early 2017 and will continue to focus on enabling employees to make more sustainable choices related to food, home, work and commuting.

Council members will have opportunities to support their professional development both in their role on the council and in their regular work roles.

### Support employees in sustainable commuting

- ▶ Ongoing employee programs will continue to include teleworking, discounts on bike purchases and bike accessories, storage and route planning for cyclists, cost reductions for transit passes, taxi vouchers in emergency situations for employees who commute sustainably, and a Green Rewards program.
- ▶ The *livegreen* Employee Council will continue to promote and support sustainable commuting choices for staff.

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