



## green operations plan 1.0

## ZERO CARBON

progress

**GHGs** 

-43%

#### **ZERO WASTE**

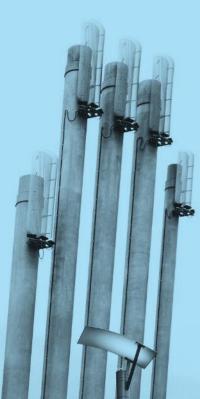
waste diversion

public-facing

other City-owned

HEALTHY **ECOSYSTEMS** 

water use







## green operations plan 1.0

# ZERO CARBON HEAT PUMP AT CITY HALL

carbon pollution -56% (-90% w/RNG)

### **ZERO WASTE**

## **REDUCED CONSTRUCTION WASTE**

200,000 tonnes reused every year

### **HEALTHY ECOSYSTEMS**

### **HEALTHIER PARKS**

banned neonic pesticides in parks







## emerging priorities







# green operations plan 2.0

10-year targets 5-year actions

New goal area: staff leadership

2 tiers of action: priority actions + demonstrating leadership

Integrating opportunities through COVID-19 response



# green operations plan 2.0



# zero carbon leading by example in the climate emergency

2030 targets





2/3
sustainable modes



50%



-50%



-50%

**CEAP Big Move 2** 

**CEAP Big Move 3** 

**CEAP Big Move 4** 

**CEAP Big Move 5** 

















tools, par



# Appendix: 1. Zero Carbon

Targets	Notes	
1. By 2030, corporate carbon emissions will be reduced by 60%, compared to a 2007 baseline.		
2. By 2030, 2/3s of staff (commuting) trips will be by active transportation, telecommuting, or transit.	aligns with Climate Emergency Big Move 2	
3. By 2030, 50% of the kilometres driven by on-road City vehicles will be by zero emission vehicles.	aligns with Climate Emergency Big Move 3	
4. By 2030, the carbon pollution from City building operations will be cut in half from 2007 levels.	aligns with Climate Emergency Big Move 4	
5. By 2030, the embodied emissions from new civic buildings will be reduced by 50%, compared to a 2018 baseline.	aligns with Climate Emergency Big Move 5	
Priority Action	Lead department(s)	Timeline
1. Establish a carbon-reduction accounting and reporting framework (at the program/project level where possible) that gives transparency to cost, contributions to carbon goals, responsibilities, etc.	Sustainability	Complete by 2021
2. Update the Sustainable Commuting Program to accelerate long-term shifts towards staff commuting by walking, cycling, or transit. Establish and implement a best practice standard for end-of-trip facilities.	HR, REFM, Sustainability	Beginning 2022; target 50% by 2025.
3. All non-emergency light-duty passenger vehicle purchases to be electric, and electric or low-carbon options considered for all other fleet and equipment purchases. [FUNDING-DEPENDENT]	ENG	Beginning immediately; funding- dependent.
4. All new heating and hot water systems in city-owned facilities to be zero emissions, and all capital replacement and maintenance systems to be zero emissions where feasible, with appropriate staff training provided.	REFM	Beginning immediately
5. Develop a refrigerant management plan for transitioning to low global warming potential refrigerants used in city owned buildings, and monitor and manage leakage of refrigerants.	REFM	Beginning in 2021; complete by mid- 2022
6. Assess and minimize operational and embodied emissions for construction of all new civic buildings and facilities, noting that new buildings are already being built to zero operational emissions.	REFM, Sustainability	Beginning immediately at 40%; working towards 50% by 2030.
7. Revise the corporate work from home policy to support the continuation of remote work, including the tracking and communications of carbon reductions.	HR	Complete by 2021; based on learnings/appetite to do so from COVID experience.
8. 25% of all corporate spend on products and materials to be low or no carbon.	All; data with SCM	Complete by 2025
Leadership Action	Lead department(s)	Timeline
9. Transition all small landscaping equipment to zero emission equivalents.	Park Board	Complete by 2023
10. Develop and implement low carbon catering guidelines for City-hosted meetings and events that accommodate culturally appropriate requirements/foods.	Sustainability, ACCS	Complete by 2022
11. Include all material Scope 3 emission sources in corporate inventory reporting.	Sustainability	Complete by 2023; set targets for reductions from 2025-30.
12. Replace city-wide streetlights with LEDs, as per the Outdoor Lighting Strategy.	ENG	Complete by 2025
13. Explore embodied carbon emission reductions to infrastructure projects.	ENG	Beginning immediately
14. Apply annual increases to the internal corporate carbon price to inform organization-wide policy, business, and operational decisions.	Sustainability, Finance	Beginning 2021
15. Continue to invest in MFA BC fossil fuel-free screened funds and identify further opportunities for divestment from fossil fuels, reporting regularly on progress.	Treasury Services	Beginning immediately
16. Integrate a climate $ric'$ assessment into Engineering's Project Management Framework.	Sustainability, ENG	Complete by 2021

# **Appendix: 2. Zero Waste**

Targets	Notes	
1. By 2030, reduce corporate waste production by 20%, compared to a 2019 baseline.		
2. By 2030, divert a minimum of 50% of overall engineering construction excavation waste for repurpose or recycling.		
Priority Action	Lead department(s)	Timeline
1. Build on the successful corporate zero waste program, ensuring a standard across all sites and incorporating additional material streams where possible.	REFM	Beginning immediately
2. Develop and implement a single-use item-free policy for all City operations.	REFM, ENG, Sustainability	Complete by 2021
3. Develop and implement a policy for recycled content in construction fill aggregates (e.g., asphalt) that is based on evolving processes and production best practices.	ENG	Complete by 2024
4. Retain, deconstruct, and/or recycle all civic buildings as case studies for community partners.	REFM, ENG	Beginning immediately
Leadership Action	Lead department(s)	Timeline
5. Develop and implement a zero waste policy for all City-hosted meetings and events.	PDS, REFM (All)	Complete by 2022
6. Explore a pilot program loaning reusable dishes for events with one of the community centres.	REFM, ACCS	Complete by 2022
7. Reuse or recycle all staff uniforms.	VPD, VFRS, VCT, ENG, Park Board	Complete by 2023
8. Explore opportunities for reducing non-essential single-use water bottles.	REFM, PDS, ENG, Park Board	Complete by 2023
9. Prioritize corporate purchase, lease, and ownership options that retain transparency in end of life processes, e.g., for IT hardware, cell phones.	SCM, Sustainability, IT (All)	Beginning immediately
10. Implement zero waste education and engagement for staff, e.g., campaigns around certain items or targeted at certain worksites; support for hard-to-recycle items.	REFM	Beginning 2021



# Appendix: 3. Healthy Ecosystems

Targets	Notes	
1. By 2030, reduce corporate potable water use by 10% compared to a 2019 baseline.	Without universal water metering of our civic facilities, metric tracking is a best estimate only based on available data and extrapolation. Accuracy will increase through continued water meter installations at prioritized City buildings.	
2. Starting immediately, all civic facilities undergoing renewal and redevelopment will be designed to target capturing and cleaning the first 48mm of rainfall per day.		
3. By 2030, 40% of all city-owned lands will provide healthy habitat* and contribute to healthy ecosystems. [STRETCH TARGET]	"Healthy habitat" defined as "naturally managed area"	
Priority Action	Lead department(s)	Timeline
1. Install operational water meters at all City-owned or controlled buildings and facilities where it is deemed necessary.	Water Conservation	Complete by 2025
2. In addition to the installation of water pressure reduction equipment at City-owned or controlled buildings and facilities, adjust water pressure to a lower setting wherever possible in an effort to conserve water and prevent leaks.	Water Conservation, REFM	Complete by 2025
3. Implement a departmental user pay system for water on all City-owned or controlled buildings and facilities.	Water Conservation, Finance, REFM	Complete by 2025
4. Park Board to develop and implement an updated Water Conservation Action Plan 2020-2025, with a focus on potable water savings.	Park Board, Water Conservation	Complete by 2021
5. Develop and budget for three neighbourhood or block scale pilots that demonstrate One Water over the next 5 years.	Park Board, Integrated Sewer and Drainage Planning, Green Infrastructure	Complete by 2025
6. Seek Salmon Safe certification at one or more civic facility and share the experience and lessons learned to inform future facilities policy.	REFM, Park Board	Complete by 2022
7. Implement an Invasive Species Management Plan for City-owned lands and parks.	Environmental Services, Park Board	Complete by 2025
8. Establish riparian setbacks in new and existing streams impacted by new or ongoing Parks/City operations; consider setbacks for habitat, flood protection and recreational connectivity. [STRETCH ACTION]	Park Board, REFM, PDS	Complete by 2025
9. Restore or enhance 30ha of natural area within parks, with a view to increase the portions of parks which are 'naturally managed' (including ecological horticulture, pollinator meadows, and forest with unmown understory).	Park Board	Complete by 2025
10. Establish 15 ha of limited access park areas for natural vegetation restoration and/or urban wildlife habitat without human and pet disturbance.	Park Board	Complete by 2025
Leadership Action	Lead department(s)	Timeline
11. Showcase water conservation projects in public places e.g., via signage, demonstration projects, art etc. to educate and train staff on water conservation.	Water Conservation, Park Board	Beginning 2021
12. Report out on learnings from the design, construction, operations and maintenance of innovative green rainwater infrastructure implemented at civic facilities to date.	Green Infrastructure, Sustainability, REFM	Beginning 2021
13. Review and refresh Operations and Maintenance protocols/manuals for green infrastructure assets at civic facilities.	Green Infrastructure, Sustainability, REFM	Complete by 2023
14. Review and update Bird-Friendly landscape and institutional building design and retrofit guidelines for all new parks, park renewals, and all new and renewed Cityowned sites.	Park Board, REFM, PDS	Beginning 2025
15. Implement capacity-building and training on healthy ecosystems for Parks and City Operations staff (e.g., bird-friendly landscape management, Green Operations Crew Talk series, low-mow protocols). [FUNDING-DEPENDENT]	Park Board, REFM, ENG	Beginning 2025
16. Create biodiversity-focused positions and/or training in Park Operations. [FUNDING-DEPENDENT]	Park Board	Complete by 2025
17. Develop technological solutions to support achievement of the healthy habitat target/actions, based on the Hard Asset Inventory and Condition Assessment lead by Park Development	Park Board	Complete by 2025

# **Appendix: 4. Staff Leadership**

	Target	Notes	
1	. By 2030, 50% of staff are engaged with Green Operations.	As measured through a regular survey. "Engaged" defined as having taken action in their own work; regularly following Green Operations in CityInsider; taken a Green Operations course, workshop, lunch-and-learn; used Green Operations tools and resources available on CityWire, etc.	
	Action	Lead department(s)	Timeline
1.	. Develop and implement an online 'Sustainability 101' theoretical training course for staff.	Sustainability	Complete by 2021
2.	. Develop and implement a series of topic-specific deep-dive lunch-and-learns and tours, delivered by staff across various departments who are subject-matter experts.	Sustainability (All)	Complete by 2022
3.	. Develop and implement topic-specific training for operational staff to support the targets and actions in the other Green Operations goal areas.	Sustainability to support relevant departments	Beginning 2022
4.	. Update new CityWire site as a sustainability hub for staff, with up-to-date tools and resources to enable continuous learning and application.	Sustainability, Internal Comms	Complete by 2022
5.	. Promote the Green Operations Fund and leverage it to support staff champions.	Sustainability	Beginning 2021
6.	. Integrate sustainability into staff hiring and onboarding.	HR	Complete by 2022
7.	. Tell Green Operations success stories through a regular sustainability section in CityInsider, publishing best-practice case studies both internally and externally, and through 'Building the City We Love' Green Operations videos.	Sustainability, Internal Comms (All)	Beginning 2021
8.	. Explore a sustainability mentorship program to connect established leaders in Green Operations work with those interested in exploring this work.	Sustainability	Complete by 2023
9.	. Explore how best to engage meaningfully with staff from VPD, VPL, VFRS, VCT and CoV field staff on Green Operations; develop and deliver content accordingly.	Sustainability, VPD, VFRS, VCT, VPL, ENG, Internal Comms	Beginning 2022

