

## Appendix B: Climate Resilient Burlington (CRB) Key Performance Indicators

Year 2 updates for each of the CRB plan's 32 actions carried out in 2023 are provided in Appendix A.

New to CRB reporting is an update on Key Performance Indicators (KPIs), as available. As noted in previous reports, some KPIs will need to be identified (when biodiversity and agricultural plans are developed), modified (to align with updated KPIs in other plans such as the Urban Forest Master Plan), or revised (with more suitable KPIs). Data to track progress for fossil fuel emissions reductions for climate mitigation is available but finding appropriate KPIs to track progress with climate adaptation is challenging as it's difficult to associate situations that don't occur (no flooding, no wind damage, no power outages, etc.) with successful implementation of one-off projects. However, it is anticipated that multiple implemented adaptation initiatives could show positive trends over time.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
Resilient Built and Natural Infrastructure	Manage infrastructure to prepare for future climate conditions and carbon neutral goals.	Updated design standards (policy, bylaw, etc.) and programs in progress for City infrastructure incorporating future climate conditions and carbon neutral goals <sup>1</sup>	Increasing	5 total	3 new 8 total	Manager, Design and Construction, Roads, Eng. Services Manager, Development and Stormwater Engineering, Eng. Services Supervisor, Energy and Emissions, EICS

<sup>1</sup> Revised indicator and target to better reflect the goal. Original indicator was “% of prioritized asset categories that have been assessed for future climate impacts.” This KPI is still a work in progress.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
	Enhance resilience of infrastructure exposed to high flood risk.	% of City with future climate informed flood mapping for creeks	95% by 2027	0	28% <sup>2</sup>	Senior Manager, Watershed Planning and Source Protection, Conservation Halton
		% of critical infrastructure exposed to high flood risk	Decreasing long term	n/a	n/a <sup>3</sup>	Stormwater Engineer, Development
	Invest in proactive measures to prepare for increased extreme events to avoid post-storm	\$ spent on emergency response and recovery actions from extreme events by type and severity	Decreasing long term (depends on type, frequency and severity of event)	Forestry \$542,017.36 for April, May and Dec. 2022 storms.	Forestry storm damage \$162,694 + \$37K in Forestry on-call costs	Manager, Park Operations Specialist, Community Emergency Management Manager, Road Operations

<sup>2</sup> This figure represents Conservation Halton's East Burlington Creeks Study (52 km<sup>2</sup> of which is in Burlington) which applied the climate adjusted IDF values from the City's [Stormwater Management Design Guidelines](#) (May 2020). Flood Hazard Mapping for Grindstone Creek (completed in Feb. 2020) is not included in the total as climate adjusted flows were modelled but not mapped. If this study was also included, then the additional 23.5 km<sup>2</sup> of the Grindstone watershed located in Burlington would change to 13% in 2022 and 41% in 2023. Calculations are based on the land area of Burlington being [186.12 km<sup>2</sup>](#).

<sup>3</sup> Delayed due to staffing resources. On workplan for summer student in May 2024.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
	reactive costs.					Stormwater Engineer, Development Manager, Design & Construction – Parks Manager, Urban Forestry & City Arborist
Thriving Natural Environment	Reduce damage to trees while increasing the value of the services they provide.	Number of work records regarding tree removals and limb failures per storm, per year <sup>4</sup>	Decreasing long term trend (depends on type, frequency and severity of extreme storms)	Total tree removals: 169 Total limb failures: 156	Total tree removals: 47 Total limb failures: 33	Manager, Urban Forestry & City Arborist
		% of tree canopy cover	35% by 2060 <sup>5</sup>	30% in 2018  (22% within urban boundary; 36% in rural	30% in 2018 <sup>6</sup>  (22% within urban boundary; 36% in rural	Manager, Urban Forestry & City Arborist

<sup>4</sup> Indicator modified slightly in 2024 to improve access to data.

<sup>5</sup> Indicator updated to correspond with a new target identified in 2022-2026 Burlington's Plan From Vision to Focus. Previously 35% by 2041.

<sup>6</sup> This statistic is based on most up to date survey. Another one won't be conducted until 2025 or 2026, pending funding approval.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
				and N. Aldershot Planning area)	and N. Aldershot Planning area)	
	Value, conserve and enhance the multiple services that natural areas provide.	\$ spent on green infrastructure <sup>7</sup> projects	Increase	n/a	\$187,471.75	Stormwater Engineer, Development Manager, Design & Construction - Parks Manager, Design & Construction, Roads Manager, Urban Forestry & City Arborist
		TBD through Biodiversity Plan	TBD	n/a	n/a	Senior Planner, Policy Manager, Urban Forestry & City Arborist

<sup>7</sup> Further discussions are needed to determine what will be considered “green infrastructure” for purposes of tracking this item. In 2023, the rain garden as part of the Plains Road protected bikeway project was included.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
Health and Wellbeing	Provide City services to support the community during extreme heat events.	# of aquatic facilities (pools, misters and splash pads) per 10,000 residents	TBD through Parks Master Plan	2 outdoor pools 1 wading pool 4 indoor pools 9 splash pads 1:2,100 children (0-9 years)	Consultant for Master Plan has been retained and expected to report to Council late spring 2024	Senior Manager, RCC Community Development
		% of community within walking distance to a public space cooling facility	100% by 2035	Unknown	Retained the services of Community Development Halton to do this work in Summer 2024	Senior Manager, RCC Community Development
Disaster Resilience	Build capacity in the community to prepare for and respond to more	% of urban area connected to a resilience hub within walking distance (15 min)	100% by 2040	0	0	Senior Manager, RCC Community Development

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
	extreme events and long-term climate stresses.	Key locations for rural resilience hubs established	Two by 2032	0	0	Senior Manager, RCC Community Development
		# of people registered on Alert Burlington <sup>8</sup>	Increasing	2,636	1,363 new 3,999 total	Specialist, Community Emergency Management
	Encourage climate adaptation actions from citizens and businesses.	Uptake of citizen and business climate adaptation support programs	Increase <sup>9</sup>	Home Flood Protection Program - 0 assessments  Building Permit Fee Grant Program - 64 rebates (\$29,575.21)  Halton Region's Enhanced	Home Flood Protection Program - 3 assessments  Building Permit Fee Grant Program - 59 rebates (\$26,192.51)  Halton Region's Enhanced	Coordinator, Sustainability Projects Manager, Environmental Sustainability

<sup>8</sup> New indicator. Numbers reported are for registered people versus number of accounts (one account might have three people registered in their household).

<sup>9</sup> Over the long term for certain programs, there could be a decline in numbers once residents/businesses have implemented the measures.

Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
				Basement Flooding Prevention Subsidy - 121 subsidies issued (\$264,034) <sup>10</sup>	Basement Flooding Prevention Subsidy - 116 subsidies issued (\$252,739) <sup>11</sup>	
Strong and Resilient Economy	Support agricultural community in preparing for climate change.	TBD through the Agricultural Action Plan	TBD	n/a	n/a	Senior Planner, Policy
	Support and develop resilient local supply chains to help withstand impacts of extreme climate events	# of new local supply chain partners	10 by 2032	0	0	Manager, Innovation and Entrepreneurship
		# of new products piloted	10 by 2032	0	0	Manager, Innovation and Entrepreneurship

<sup>10</sup> This Data was provided by The Regional Municipality of Halton and the Region assumes no responsibility or liability for its use or accuracy.

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Theme	Goal	Indicator	Target	Status (2022)	Status (2023)	Lead
	outside of Burlington.					