

CLIMATE READY OTTAWA

Document 2: Appendices

October 2025



Contents

1.0 Appendix one: Top climate risks from Ottawa’s Climate Vulnerability and Risk Assessment.....	3
Introduction	3
Resilient communities	3
Resilient infrastructure	4
Resilient natural environment.....	6
Emergency preparedness and response	6
2.0 Appendix two: Climate Ready Ottawa 2026-2030 five-year action plan summary	8
3.0 Appendix three: Performance measurement.....	12
1.0 Resilient communities	13
2.0 Resilient infrastructure	14
3.0 Resilient natural environment.....	16
4.0 Extreme weather preparedness and response	17
5.0 Climate resiliency integration	18
6.0 External trends.....	19
4.0 Appendix four: Summary of public engagement: 2023-2025.....	21
Engagement Summary	21
2023 Engagement.....	21
2024- 2025 Engagement	22
Conclusions and Key Takeaways	23
5.0 Appendix five: Glossary.....	25

1.0 Appendix one: Top climate risks from Ottawa's Climate Vulnerability and Risk Assessment

Introduction

Climate change is already affecting daily life in Ottawa, from heatwaves that increase health risks, to freeze–thaw cycles that damage roads, to heavier rainfall that raises flooding hazards. The City completed a Climate Vulnerability and Risk Assessment in 2022, the second phase of the Climate Resiliency Strategy.

The assessment used climate projections and input from staff, partners, and the public to examine nearly 150 possible impacts on health, infrastructure, the environment, and the economy. From this, 40 priority risks were identified for immediate action. The top risks by priority area are summarized below, with further details available in [the full report](#). Climate Ready Ottawa was further informed by a detailed health risk assessment conducted by Ottawa Public Health. Their report, [Climate Change and Health Vulnerability Assessments](#), outlines key findings and recommended strategies to help residents adapt to the impacts of a changing climate.

Resilient communities

Climate change does not affect everyone equally. While all residents will feel the impacts of heatwaves, flooding, and severe storms, certain communities are more at risk due to age, health, income, housing conditions, or their professions. The top risks for Ottawa's communities highlight where climate change is expected to have the greatest impacts on residents' health, safety, and well-being.

Top risks to communities

Extreme heat, drought, and humidity

- Increased heat stress and dehydration, especially for those disproportionately impacted
- Cancelled outdoor recreation, sports and cultural events or indoor programs where cooling is not available
- Reduced agricultural yields and increased need for irrigation

Seasonal variability and change

- Increased spread of vector-borne illnesses such as Lyme disease and West Nile virus, and new illnesses
- Increased slip and fall injuries during icy conditions
- Decline of winter recreation and tourism
- Reduced agricultural yields from variable conditions and increased pests and diseases

Increased volume and intensity of precipitation

- Increased basement flooding, localized flooding, and property damage from riverine flooding, overland flooding or overwhelmed stormwater drainage systems
- Reduced access to roadways, transit and active transportation routes, parks, and properties during flooding events
- Delayed planting and/or harvesting and reduced pasture, crop damage from intense rainfall

Extreme weather events

- Reduced access to essential services during extreme weather (e.g., health services, grocery stores, food banks, mental health supports, schools, community centres, transit)
- Increased risk of food spoilage and loss, heat and cold related exposure, and reduced access to services due to prolonged power outages
- Increased mental, physical and financial pressures from extreme weather, especially for people experiencing poverty or living in homelessness, as well as increased social isolation
- Temporary impacts to usage of city assets affected/damaged by extreme weather events
- Increase in respiratory, asthma, and air-quality related emergency department visits due to poor air quality from wildfire smoke.
- Business disruptions due to extreme events or supply chain interruptions

Global climate change

- Supply chain instability and/or market failures impacting the cost and/ or availability of goods and services, impacting populations and businesses
- Reduced food security, with additional pressures on low-income populations
- Increased risk of skin cancer from increased exposure to UV radiation and stratospheric ozone.

Resilient infrastructure

Ottawa's infrastructure systems, including roads, buildings, water, wastewater, and transit, were designed for past climate conditions. As the climate changes, these assets face increase stresses from heat, precipitation, freeze–thaw cycles, and extreme storms. The following risks highlight how climate change could accelerate their decline, disrupt essential services, and increase maintenance costs.

Top risks to municipal infrastructure

Extreme heat, drought, and humidity

- Increased cooling demands in buildings
- Increased demand for shaded outdoor areas and cooled indoor recreation facilities

- Accelerated deterioration of transportation infrastructure due to extreme heat, drought, and humidity. Asphalt-based surfaces softening under heavy vehicles, causing rutting, potholes, more frequent repairs, and increased safety risks to residents. Paver stones may shift or crack due to changing conditions creating accessibility challenges. Rail systems also vulnerable with high heat causing track expansion and buckling, leading to more frequent speed restrictions
- Reduced access to outdoor recreational spaces and infrastructure leading to fewer opportunities for sports, community activities, and outdoor play
- Disruptions to agricultural activities, impacting local food production

Seasonal variability and change

- Increased freeze-thaw damage reduces lifespan of transportation infrastructure (roads, sidewalks, pathways), buildings (foundation cracking and heaving, pipe bursts), and stormwater/wastewater systems (catch basins, driveway culverts, maintenance holes, pump stations)
- Increased maintenance needs for winter roads, sidewalks, and pathways
- Greater risks to users from icy conditions caused by freeze-thaw cycles and freezing rain
- Increased potential for ice damming during spring freshet potentially affecting bridges over waterways

Increased volume and intensity of precipitation

- Building damage from inland or riverine flooding, and basement flooding/ sewer backup (overwhelmed stormwater and wastewater systems)
- Reduced access to buildings, roads, transit, pathways, and critical services due to riverine or inland flooding
- Damaged / overwhelmed stormwater, wastewater, and flood protection infrastructure in floodplains (e.g., pump stations, culverts, sewers, berms)
- Increased runoff from overwhelmed stormwater infrastructure causing reduced water quality, erosion, bank destabilization, and localized basement flooding

Extreme weather events

- Increased winter maintenance of roads, sidewalks and pathways, and risks to users freezing rain/ icy conditions
- Reduced access to essential services during extreme weather and power outages (e.g., electricity, health, education, food banks, transit)
- Ditch and culvert blockages from windborne debris causing localized flooding
- Increased damages to outdoor assets (e.g., play structures, sports fields, trails, pedestrian bridges, etc.)

Global climate change

- Supply chain instability and/or market failures impacting the cost or availability of goods required to maintain or construct buildings, transportation, and water-related infrastructure systems.

Resilient natural environment

Ottawa's natural environment provides shade, clean air and water, habitat, recreation, and gathering spaces. Climate change, however, is putting increasing pressure on forests, rivers, wetlands, and green spaces. Rising temperatures, shifting seasons, and extreme weather events threaten the health of ecosystems, reduce their ability to provide these benefits, and increase risks for residents.

Top climate risks to the natural environment

Extreme heat, drought, and humidity

- Stress on trees and other terrestrial and aquatic ecosystems, including increased harmful algae blooms
- Impact to drinking water supply and aquifers

Seasonal variability and change

- Increased impacts of pests, diseases, and invasive species that harm trees, forest, and other ecosystems (e.g., Emerald Ash Borer or Dutch Elm Disease)
- Increased environmental damage and degradation from increased use of a road salt to counter freeze-thaw cycles
- Increased damage to vegetation (especially urban trees) due to fluctuating temperatures that impact life cycle processes
- Increased volume and intensity of precipitation
- Erosion of riverbanks and slope destabilization

Extreme weather events

- Ice storms, extreme wind, lightning storms, heavy snowfall causing greater damage to trees, forests, parklands, and other natural areas
- Damaged property and communication and power lines from falling trees

Emergency preparedness and response

As extreme weather events become more frequent and severe, Ottawa's emergency response systems will face additional pressures. These risks will place added strain on critical systems and disproportionately impact at-risk populations.

Top climate risks related to extreme weather

Extreme heat, drought, and humidity

- Increased risk of heat stress, dehydration or emergency room visits
- Increased heat stress for first responders
- Increased occurrence and spread of wildfires

Seasonal variability and change

- Increased slip and fall injuries due to increased icy conditions

Increased volume and intensity of precipitation

- Increased frequency and severity of both riverine and overland flooding resulting in emergency conditions in flood-prone areas, and increased need for shelter and support services

Extreme weather events

- Increased frequency and duration of power outages resulting in loss of perishable foods, stranding of people who need elevators or rely on power-operated medical devices, and an increase of carbon monoxide poisoning or house fires from unsafe heating and cooking (e.g., using BBQs and portable generators indoors)
- Strained emergency and operational services from increased severity, frequency and/or combination of extreme weather events and recovery efforts
- Direct damage to buildings and infrastructure, resulting in disruption of critical services like transportation networks, food banks, and other social services
- Additional impacts on at-risk populations, including mental health pressures

Global climate change

- Supply chain instability and/or market failures impacting the availability or cost of goods required for emergency services.

2.0 Appendix two: Climate Ready Ottawa 2026-2030 five-year action plan summary

Program/ Project	Description	Lead Department / Supporting Department(s)
1. Flood Preparedness (Proposed new investment: \$1.25M + Rate funding)		
Integrated community flood preparedness program	Increase outreach to homeowners, renters, and businesses in areas vulnerable to flooding from heavy rains or riverine flooding on steps they can take to prepare and raise awareness of City programs such as Residential Protective Plumbing and Compassionate Grant.	IWSD/ SI
Riverine flood risk management program	Conduct flood risk assessments and develop risk mitigation and response plans for riverine flood vulnerable areas in the lower Rideau River. Includes inventory and condition assessment of existing flood control structures, risks to public infrastructure and communities, and exploration of flood mitigation and response options.	IWSD/ PW/ Conservation Authorities
Enhanced inland flood mitigation in high-risk neighbourhoods	Strengthen flood risk assessment and mitigation plans for areas prone to flooding under heavy rains. Identify opportunities for low impact developments, nature-based solutions, and green infrastructure. Focus on neighbourhoods with lower socio-economic conditions and equity scores.	IWSD
2. Cooling Strategy (Proposed new investment: \$4M)		
Targeted communications and outreach to most at risk to extreme heat	Develop and deliver targeted communications and engagement with an accessibility and equity-lens to raise awareness of the health risks of extreme heat and engage and mobilize community partners to increase adoption of actions that reduce these risks.	OPH/ SI

Cooling amenities in parks and public realm	Accelerate the addition of accessible amenities that provide heat relief, such as shade structures, drinking water fountains, misting stations, or cooling in community recreation buildings, as well as installation and/or renewal of splash pads and wading pools.	RCFS/ IWSD/ OPH/ CSSD
Hydrant misting atation pilot	Pilot the seasonal installation of accessible water fountain and misting stations on fire hydrants in equity-deserving and at-risk neighbourhoods.	OPH/ IWSD
Cooling options analysis for social housing	Collaborate with social housing providers to identify and assess options to add permanent cooling in existing buildings.	OPH/ CSSD
Heat mitigation pilots, policies, and partnerships	Establish a multi-department team to identify and implement proactive measures to reduce heat risks to most at-risk populations (including policies, pilots, and partnerships).	SI/ OPH/ CSSD/ EPS/ RCFS /IWSD/CEWG¹
3. Community Climate Preparedness (Proposed new investment: \$4.75M)		
City-wide climate education and outreach	Broaden outreach on climate preparedness for all climate risks.	SI/ CSSD/ OPH/ CEWG
Community climate preparedness pilot program	Collaborate with community agencies to build knowledge and capacity of disproportionately impacted communities about climate risks and preparedness, and support community-led action.	SI/ CSSD/CEWG
Community emergency preparedness pilot program for extreme weather	Establish a grant program to support community groups, organizations, and social service providers to bolster their ability to address future climate emergencies.	EPS/CSSD/OPH/EWG
Resilient Homes Loan pilot program	Explore possible expansion of the Better Homes Ottawa Loan program to support homeowners to install climate preparedness features in their homes	SI
4. Critical Infrastructure (Proposed new investment: \$3.75M + Rate funding)		
Flood protection at water purification plants	Ensure safe access to Britannia water purification plant during riverine floods for continued plant operation.	IWSD

¹ CEWG -Climate Equity Working Group – an assembly of representatives from various City departments and OPH, to guide and advise on climate equity-based communications and engagement to reach and mobilize disproportionately impacted communities.

Climate risk assessment for critical facilities	Conduct climate risk screenings and assessments of ~230 City facilities that provide critical services and develop risk mitigation plans to address the highest risks.	SI/ IWSD/ RCFS/ EPS
Flood risk assessment for critical transportation corridors	Conduct flood risk assessments and develop mitigation strategies for vulnerable transit and transportation routes, including improving road access in flood-prone communities.	TS
5. Climate-Ready Infrastructure (Proposed new investment: \$5M + Rate funding)		
Resilient Infrastructure pilot program	Test resilient infrastructure solutions and support “like for better” upgrades to infrastructure for facilities, parks, and transportation infrastructure. Integrate results into capital planning.	SI/ IWSD/ RCFS
Climate ready design standards	Update key guidelines and standards to include climate adaptation in planning and design (e.g., for facilities, parks, transit, and sewers).	IWSD/ RCFS/ TS
Nature based solutions	Implement nature-based solutions and stormwater low impact development (LID) strategies to strengthen climate resilience where additional stormwater management has been quantified and where feasible.	IWSD
6. Resilient Natural Environment (Proposed new investment: \$3.25M + Rate funding)		
Tree canopy in priority areas	Accelerate implementation of the Tree Planting Strategy to increase canopy cover in neighbourhoods identified through Tree Equity Score Analysis.	PW
Wildland fire risk assessment	Identify forests and other natural areas most at risk to fire and develop risk mitigation plans.	SI/ PW
Forest Health Management program	Monitor and manage impacts from emerging pests and disease and support safe tree removal and forest recovery after extreme weather events.	PW
Proactive tree maintenance	Accelerate the proactive tree maintenance program to enhance resilience to severe weather events.	PW
Tree and greenspace valuation and condition assessment	Revise tree valuation and condition assessments to inform updates to the Greenspace and Forest Asset Management Plan.	SI/ PW/ IWSD

Natural Hazards Management program	Develop a program to identify and address unstable slopes and erosion concerns in watercourses and associated ravines	IWSD
7. Extreme Weather Preparedness and Response (Proposed new investment: \$3M)		
Build mobile generator fleet for agile response to power outages	Expand the fleet of mobile generators that can be quickly dispatched to various facilities or critical infrastructure during power outages.	RCFS/EPS
Extreme weather operational plans, analysis & training	Update operational plans and training to better prepare and respond to extreme weather events.	PW
Enhance emergency preparedness for top climate hazards	Conduct a full-scale exercise for top climate hazards, update emergency telecommunications, and secure priority response equipment.	EPS
Extreme Weather Partnership program	Cultivate and coordinate support from private sector and non-profit partners to champion preparedness, response, and recovery during extreme weather events.	EPS/OPH
Back-up home battery pilot program for medical devices	Work with partners to establish a pilot program that provides back-up batteries for medical devices to support at-risk populations during power outages, reduce pressures on emergency response services to support at-risk populations during power outages, and reduce pressures on emergency response services.	EPS/CSSD/OPH/AO

3.0 Appendix three: Performance measurement

Monitoring and evaluation of Climate Ready Ottawa will track both project delivery, (“*Are we doing things right/well?*”) as well as strategic effectiveness, (“*Are we doing the right things?*”). This will show if the projects and programs are being implemented as planned and if the plan is achieving its intended outcomes.

Performance metrics have been identified to track strategy delivery, effectiveness, and external conditions:

- Output indicators (implementation measures) – *What have we delivered or implemented?*
- Outcome indicators (effectiveness measures) - *Are adaptation and resilience projects working to achieve long-term results?*
- External trends (changing environment/ external conditions) – *How has the climate changed, what extreme weather events have occurred, and what social or economic trends could affect our results?*

Output indicators will be tracked annually while outcome and external conditions will be assessed every five years, or as data is available.

Given climate variability, understanding climate resilience is like capturing a moving target. This is further magnified by the adaptive management approach that adjusts and refines actions as projects advance and draws from lessons learned. Another issue is attribution or causality – climate change may not be the only factor influencing an indicator, especially for longer-term indicators. Other factors could include external social or economic conditions, or infrastructure conditions.

Establishing indicators is an iterative process. Indicators will be refined as new data is available, and risks and opportunities emerge. Key considerations for selecting the current set of indicators included appropriate units of analysis, frequency of measuring and reporting, financial costs, and whether to use existing data or develop new protocols. To develop the initial set of indicators, City staff worked with community groups, a non-government organization, multiple departments, and reviewed best practices, literature, and approaches from other municipalities.

1.0 Resilient communities

Strategy implementation will be tracked through the following kinds of output indicators:

- Number of climate outreach and engagement initiatives, and people engaged
- Number and value of grants or loans awarded (e.g., Residential Protective Plumbing, Rain Ready Ottawa, Community climate preparedness, Better Homes Ottawa Loan Program)
- Number and type of partnerships for climate resiliency
- Number of updated floodplain maps
- Number of completed flood risk assessments for high-risk flood-vulnerable riverine areas
- Completed cooling options analysis
- Number of new cooling amenities installed across the city and in priority neighbourhoods (drinking water fountains, misting stations, splash pads, shade structures etc.)

Strategy effectiveness will be measured through the following outcome indicators, some of which are being refined due to lack of data:

Area	Key Performance Indicator (KPI)	Baseline data (Y/N)	Source	Frequency
Prepare for Flooding				
Riverine flooding	Percentage of properties in municipality resilient to 1:100 year riverine flooding event*	Y	City-Wide Flood Risk Profile	5 years
Inland surface flooding	Percentage of properties in municipality resilient to 1 in 100-year storm (overland flooding)	Y	City-Wide Flood Risk Profile	5 years
Sewer system performance	Percentage of the municipal stormwater management system resilient to a 1 in 5-year storm (sewer system performance)	Y	City-Wide Flood Risk Profile	5 years
Basement flooding	Percentage of the municipal stormwater management system resilient to a 1 in 100-year storm (basement flooding)*	Y	City-Wide Flood Risk Profile	5 years
Protect from Extreme Heat				

Heat related hospital visits	Annual age-standardized rate of heat-related emergency department visits among Ottawa residents	Y	OPH - NACRS	Annual
Access to Cooling Amenities	Distribution of drinking water fountains, splash pads, shade structures and other cooling amenities*	Some		TBC
Community Climate Preparedness				
Community awareness of climate risks and solutions	KPIs will be refined potentially drawing on OPH surveys or federal data through the National Adaptation Strategy	N		5 years
Vector-borne diseases	Annual rate out of 100,000 of confirmed or probable vector-borne diseases in Ottawa residents	Y	OPH - iPHIS	Annual
Health impacts of wildland fire smoke	KPIs will be refined through program development, drawing on public health data	N		TBD
Leveraged funds	Total amount of homeowner contributions in cost-share grant programs for resiliency	Some	Program data	Annual

* Will include equity analysis.

2.0 Resilient infrastructure

Strategy implementation will be tracked through the following kinds of output indicators:

- Number of Climate Vulnerability and Risk Assessments completed on critical facilities
- Number of completed feasibility studies for safe road access during severe flooding
- Number of City standards and guidelines updated to include climate resilience criteria
- Number of City projects using nature-based, low impact development, or green infrastructure solutions
- Number and type of pilot projects with climate-ready features
- Number of new bus shelters that offer shade and shelter

Strategy effectiveness will be measured through the following outcome indicators, some of which are being refined due to current lack of data:

Area	Indicator	Baseline data (Y/N)	Source	Frequency
Critical Infrastructure and Services				
Critical facilities resilience	Percent of critical facilities with a completed climate vulnerability and risk assessment	Y	Strategic Initiatives	4 years
Drinking water resilience	Number of days per year with a boil water advisory in effect per system (central, communal)	Y	Water Distribution Branch	4 years
Drinking water resilience	Number of households affected by drinking water advisories*	Y	Drinking Water Quality Management System	Annual
Sewer and stormwater flooding	Number and volume of CSO events per mm of rainfall in the reporting season.	Y	Wastewater Linear Collection Systems Branch	Annual
Nature-based solutions/ Green Infrastructure	Catchment area and runoff volume managed through City projects and Rain Ready Ottawa using nature-based, Low Impact Development (LID), or Green Infrastructure solutions	N		5 years
Service disruption due to climate events	KPIs will be refined through program development	N		5 years
Safe Transportation Systems				
Pavement deterioration	Pavement Quality Index*	Y	Linear Asset Management Branch	4 years
Transit stops with shelters	Percentage of transit stops with shelter (shade/protection)*	Y	Transit Services	5 years

Shaded transportation network	Square meters of active transportation network with overlaid canopy cover*	N		5 years
-------------------------------	--	---	--	---------

* Will include equity analysis.

3.0 Resilient natural environment

Strategy implementation will be tracked through the following kinds of output indicators:

- Number of trees planted in identified priority areas
- Number of trees maintained each year
- Area of rural and urban forest evaluated under wildland fire risk assessment
- Completion of Forest Health Monitoring Plan and early detection response framework for tree and forest pests and disease
- Change in call volume for tree-related service requests
- Established condition-rating and valuation methodology for trees, forest and other natural areas
- Length of high-risk watercourse reaches on City property with a condition and risk assessment

Strategy effectiveness will be measured through the following outcome indicators, some of which are being refined due to current lack of data:

Area	Indicator	Baseline data (Y/N)	Source	Frequency
Protect, Maintain and Enhance Tree Canopy				
Canopy cover	Percentage of canopy cover change (City-wide, by transect, by Ward, by neighbourhood, and for urban priority neighbourhoods as identify by the tree equity score analysis)*	Y	City of Ottawa Canopy Cover Data	5 Years

Proactive tree maintenance	Percentage of trees maintained within lifecycle maintenance program*	N	SAP Reporting	Annual
Protect and enhance natural heritage and other greenspace				
Wildland fire risk	KPIs will be refined through program development	N		
Forest health	KPIs will be refined through program development	N		
Unstable slopes/erosion issues	KPIs will be refined through program development	N		

* Will include equity analysis.

4.0 Extreme weather preparedness and response

Strategy implementation will be tracked through the following kinds of output indicators:

- Continuity of Operations Plans updated for freshet, inland flooding and extreme weather
- Number of mobile generators and transfer switches installed
- Number of communities or partners supported by grants for community preparedness
- Value of grants awarded
- Number of people supported with back-up batteries for medical devices during power outages
- Number of departments and partners participating in full scale training exercise

Strategy effectiveness will be measured through the following outcome indicators, some of which are being refined due to current lack of data:

Area	Indicator	Baseline data (Y/N)	Source	Frequency
Prepare for more frequent and severe extreme weather events				
Backup power at critical facilities	Percentage of critical facilities with backup power for critical systems	Y		5 Years
Build community capacity to prepare and respond				
Community emergency preparedness	Number of community associations registered with a community emergency preparedness plan*	N		5 Years
Work with external partners to prepare for more power outages				
Partner support	Number and diversity of partners supporting residents during extreme weather events	N		Annual

* Will include equity analysis.

5.0 Climate resiliency integration

Strategy implementation will be tracked through the following indicators:

Area	Indicator	Baseline data (Y/N)	Source	Frequency
City-wide climate resilience budget	Total annual budget allocated for capital projects with a major or moderate contribution to climate resiliency	Y	Capital budget	Annual
External funding	Total external funding secured for resiliency	Y	Strategic Initiatives	5 Years

Unplanned extreme weather expenditures	Incremental costs to respond to and recover from extreme weather events	Y	Annual Report	Annual
Council Reports with climate adaptation measures	KPIs will be developed through program development	N		

6.0 External trends

External trend indicators track broader conditions and factors that could affect progress towards the long-term objectives. These forces are outside of the City's or a project's control. The external trend indicators are organized into climatic (physical or climate-based) and socio-economic (based on societal developments or economic trends) categories. Climatic trends include, but are not limited to:

- Increase in annual average temperatures and number of heat warning days (maximum temperature greater than 31 degrees Celsius for 2 consecutive days or more, and nighttime minimum temperatures are 20 degrees Celsius or warmer or humidex is greater than 40 degrees Celsius for 2 consecutive days), annually
- Total annual precipitation (millimeters), annual maximum one-day precipitation (millimeters), and other precipitation thresholds for specific infrastructure design
- Number of days with wind warning (70km/h or more sustained wind; and/or gusts to 90k/m or more), annually
- Number of days under a burn ban, annually
- Number of freeze-thaw cycles, by season
- Number of days of river flooding above 1:20/ 50/ 100 flood event elevations on specific reaches of the Ottawa and Rideau Rivers
- Number of tornadoes, ice storms and other extreme weather events

Socio-economic trends could include, but not limited to:

- Self-reported mental health (OPH Dashboard)
- Percentage of households that are food insecure (Public – PHO – Canadian Income Survey)
- Changes in number of tourists visiting Ottawa

- Changes in households with air conditioning

4.0 Appendix four: Summary of public engagement: 2023-2025

From 2023 to 2025, the City of Ottawa engaged thousands of residents to help shape *Climate Ready Ottawa*, the City's climate resiliency strategy. Engagement confirmed strong alignment on the urgency of preparing infrastructure and natural systems to future climate conditions, protecting vulnerable residents, and embedding resilience into City planning.

For more information refer to the 2023 [As We Heard it Report](#) and Supporting Document 3: 2024-2025 As We Heard it Report.

Engagement Summary

2023 Engagement

Objectives: Learn community concerns about climate change and generate ideas for how the City and residents can prepare for the impacts of climate change; Capture perspectives of equity-deserving and under-represented groups; Kick-off public awareness on climate resiliency

Format	Participation/ who engaged	Feedback and use
Engage Ottawa online platform	6,400 visitors, 1,309 contributions, 226 ideas with 1,212 likes and 58 follow-up comments	Ideas and contributions summarized to inform draft strategy and identify resident priorities
Community Dialogues: 10 in-person sessions + 1 virtual session, co-hosted with CAFES and community associations	330+ participants; 70 volunteer facilitators; residents from community associations across Ottawa	Feedback summarized in CAFES report (engagement session partner); informed draft strategy priorities and planning

Small group workshops and dialogues	Ottawa Public Health Community Engagement Team, Ottawa Youth Engagement Committee, organizations serving renters, people experiencing homelessness, people with disabilities; Ambassadors Working Group; Indigenous communities (initial meeting)	Feedback applied to ensure equity lens in draft strategy and incorporated into ongoing engagement
Virtual public information session 'Creating a Climate Resilient Ottawa'	Open to public; featured Intact Centre and City staff	Feedback from Q&A informed communications and highlighted public interest areas for strategy refinement

2024- 2025 Engagement

Objective: Present the draft Climate Ready Ottawa strategy to residents for review and gather feedback on proposed actions; gather additional input with a focus on inclusion, accessibility, and identifying remaining gaps; targeted interest holder engagement; Share how the draft Climate Ready Ottawa strategy reflects previous engagement activities.

Format/ how engaged	Participants/ who engaged	Feedback and use
Online Engage Ottawa survey	487 survey responses The survey captured a diverse cross-section of Ottawa residents from urban, suburban, and rural areas, with notably high response rates from rural residents and villages.	Feedback informed revisions to draft strategy and helped finalize action priorities
In-person and virtual Open Houses	25 virtual and 30 in-person participants across Orleans, Nepean, City Hall, and one virtual event	Feedback collected on draft strategy actions and priorities; used to refine final strategy before release

AccessAbility Day	In-person City Hall with residents attending AccessAbility Day	Feedback on the draft with a focus on inclusion and accessibility, and identifying any gaps for further consideration
Targeted sessions with interest holders	Hydro Ottawa, Conservation Authorities, National Capital Commission, People’s Official Plan, Community Development Framework partners	Feedback from key partners; used to refine final strategy before release

Conclusions and Key Takeaways

Across 2023–2025, engagement consistently affirmed strong public support for a climate resiliency strategy. Residents identified many actions the City could undertake to both reduce risks to municipal assets and help members of the community prepare for the impacts of climate change. Feedback from residents as it relates to the priority areas is summarized below.

Priority Area	Feedback
Resilient communities	<ul style="list-style-type: none"> Residents highlighted health risks from extreme heat, flooding, and wildfires, as well as mental health stress from climate uncertainty. Renters and low-income households identified barriers beyond their control, stressing the need for equity-focused supports. Support for maximum indoor temperature regulations and expanded cooling options to protect renters, seniors, and multi-unit residents.
Resilient infrastructure	<ul style="list-style-type: none"> Concerns about power outages and infrastructure not withstanding climate impacts. Support for new infrastructure to be built with resiliency in mind. Strong support for protecting critical services and building resilience in social and low-income housing. Priority on strengthening the electricity grid with backup power and battery storage.
Resilient natural environment	<ul style="list-style-type: none"> Support for urban forest management and investment in greenspaces. Residents prioritized protecting and connecting natural areas and expanding trees and shaded structures for cooling options.

Emergency preparedness	<ul style="list-style-type: none"> • Residents asked for alert systems, communications plans, neighbourhood-level emergency plans, and community hubs for cooling, warming, and power. • Emphasis on building community connections to share resources during extreme events. • Continued requests for practical guidance, accessible resources, and financial supports at the household and neighbourhood level.
Governance, leadership, and accountability	<ul style="list-style-type: none"> • More than 80% of residents supported the overall strategy direction (2024 Survey). • Residents emphasized the need for City leadership, clear communication, and financial support. • Support for embedding climate resilience in City Master Plans and Asset Management Plans, with transparent reporting.
Personal Climate Preparedness	<ul style="list-style-type: none"> • Respondents are ready to act on climate preparedness but need more support from the City to do so, barriers cited: High costs, limited control, and personal or systemic constraints hinder individual action. • Residents stated needing: clearer guidance and information, and financial assistance to overcome barriers. • Additional support includes establishing community hubs and facilitation of neighbour-to-neighbour connections. • Community collaboration and personal commitment are essential, as many feel individual efforts alone are insufficient.

5.0 Appendix five: Glossary

Adaptation	Preparing for and responding to the impacts of a changing climate and building climate resiliency
Asset Management Plan (AMP)	A requirement of Ontario Regulation 588/17, AMPs report the current state of assets, target and expected levels of service, strategies and activities applied by the City, historical and forecasted financial details, risks, and non-financial strategies, and potential improvement actions.
Climate change	Long-term changes in climate variables, as measured by temperature, precipitation, and frequency of events, differ significantly from the normal range for a particular region.
Climate hazard	Potential source of harm. Hazard comprises slow-onset developments (for example: rising temperatures over the long term) as well as rapidly developing climatic extremes (for example: a heatwave) or increased variability.
Climate impact	The resulting problem or opportunity to deal with a climate hazard (e.g., culvert failures, road washouts, flooding basements, etc.).
Climate risk	The effect of uncertainty. Potential harm that climate change impacts may cause to societies or ecosystems. Assessing climate risk involves analyzing the possible consequences, their likelihood, and the available responses.
Community capacity	The ability of residents, communities, and businesses to respond to and withstand climate events, including having mechanisms in place to recover quickly.
Conservation authorities	Conservation authorities develop and deliver local, watershed-based resource management programs on behalf of the province and municipalities. Conservation authorities are local public sector organizations established by the Province and governed by the Conservation Authorities Act, which is administered by the Ministry of Natural Resources (MNR).
Critical infrastructure and facilities	Critical infrastructure as guided by Ontario Emergency Management and Civil Protection Act O. Reg 71/22, includes facilities and systems essential to the functioning and safety of society. This includes, for example, municipal infrastructure for water distribution and wastewater collection and treatment, emergency protection services and key administration buildings. Additional infrastructure for continued critical service delivery includes fill stations and garages, emergency reception and lodging centers, city owned long term care homes and pump stations.

Drought	A prolonged period of below-average rainfall and high temperatures, which leads to extremely dry conditions. Drought increases fire risk and causes agricultural stress. Drought conditions and frequency will increase as a result of climate change.
Extreme weather	Extreme weather refers to unusual, severe, or unseasonal weather conditions that can cause significant disruption or damage. In Ottawa, this can include heatwaves, heavy rainfall, droughts, ice storms, tornadoes, derechos, or other windstorms.
Freeze thaw cycle	The pattern of temperatures fluctuating above and below 0°C, causing water to freeze at night and thaw during the day. This cycle is common in late fall, winter, and early spring, and affects everything from road conditions and building foundations to natural ecosystems. As a result of climate change, these cycles will become more frequent.
Green infrastructure	Refers to natural and nature-based systems - such as trees, wetlands, and waterways, as well as designed systems like bioswales, rain gardens, and green roofs that mimic and enhance natural processes. Together, these assets manage stormwater, reduce flood and erosion, cool neighbourhoods during extreme weather, improve air and water quality, and provide habitat for biodiversity and pollinators. Beyond environmental benefits, green infrastructure also supports healthier, more resilient communities by fostering recreation, cultural connections, and mental well-being.
Heat event	Environment and Climate Change Canada defines heat events as: daytime temperature of 31°C or higher and nighttime temperature not cooler than 20°C for at least two days, or a Humidex of 40 °C for at least two days. Heat events can cause significant health impacts to vulnerable populations, cause infrastructure strain, and environmental stress.
Inland flooding	Inland flooding occurs after prolonged or intense rainfall when the volume of water overwhelms the capacity of natural or built drainage systems. Inland flooding can include sewage back-ups when storm or sanitary sewer systems are overwhelmed and surcharge into basements. It can also include overland or surface flooding where runoff flows over streets, yards, or parks.
Long Range Financial Plan (LRFP)	Comprehensive documents that establish sustainable funding strategies for asset maintenance, renewal, and growth across tax-supported, rate-supported, and transit assets.
Low impact development (LID)	A stormwater management approach that seeks to reduce the harmful impacts of increased runoff and stormwater pollution by mimicking natural processes to absorb, filter, and store rainwater close to where it

	falls. It focuses on minimizing environmental disruption and promoting infiltration, evapotranspiration, and reuse of rainwater.
Nature based solutions	Nature-based solutions are strategies that use natural systems or processes to solve challenges caused by climate change. In rural settings, they can include restoring wetlands to manage water flow or using cover crops to improve soil health and carbon storage. In urban settings, it can include the use of rain gardens and green roofs to manage stormwater and reduce urban heat.
Natural environment	Refers to forests, rivers, wetlands, and wildlife. Within the context of climate change, these environments are both impacted by and part of the solution to climate challenges.
Poor air quality	Poor air quality can be caused by a variety of factors, including traffic related-air pollution, smog, and smoke caused by wildfires.
Resilience	The capacity to prevent, withstand, respond to, and recover from climate trends and shocks.
Risk assessment	The process of determining and evaluating risks. Assessments may be quantitative or qualitative and involve applying rating levels to prioritize risks needing mitigation.
Risk management	The identification, assessment, and response to risk to a specific objective. Integrated risk management is a systematic process for identifying, analyzing, evaluating, mitigating, communicating, documenting, and monitoring/reassessing risks that would threaten the achievement of objectives.
Riverine flooding	The overflow of rivers or streams caused by excessive rainfall, snowmelt, or upstream water release, leading to water spilling into surrounding areas.
Urban forest canopy cover	A measure of the layer of tree leaves, branches, and stems that provide tree coverage of the ground when viewed from above. It is typically expressed as a percentage of total land area covered.
Urban heat island effect	Built-up urban areas that are hotter than nearby rural areas or greenspace because buildings and paved surfaces amplify and trap heat. The average air temperature of a city with 1 million people or more can be 1 to 3°C warmer than its surroundings. In the evening, the difference can be as high as 12°C. Heat islands can exacerbate the impact of an extreme heat event, putting additional stress on the health of vulnerable people.
Vulnerability	The likelihood to be affected by change. Vulnerability includes a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.