

Subject: Climate Ready Ottawa Strategy

File Number: ACS2025-SI-CCR-0011

Report to Environment and Climate Change Committee on 21 October 2025

and Council 12 November 2025

Submitted on October 9, 2025 by Debbie Stewart, General Manager, Strategic Initiatives Department

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Ward: Citywide

Objet: Stratégie Parés pour les changements climatiques Ottawa

Numéro de dossier : 2025-SI-CCR-0011

Rapport présenté au Comité de l'environnement du changement climatique le 21 octobre 2025

et au Conseil le 12 novembre 2025

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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That the Environment and Climate Change Committee recommend that Council:

- 1) Approve the Climate Ready Ottawa Strategy and Five-year Plan as outlined in this report and Documents 1 and 2; and,
- 2) Delegate the authority to the General Manager, Strategic Initiatives, and the Director, Climate Change and Resiliency Service, individually, to approve, amend, execute, and extend agreements related to Climate Ready Ottawa within the Strategic Initiatives Department as further described in this report.

RECOMMANDATION(S) DU RAPPORT

Que le Comité de l'environnement et du changement climatique recommande au Conseil ce qui suit :

- 1) Approuver la stratégie Parés pour les changements climatiques Ottawa et le plan quinquennal décrits dans le présent rapport et dans les documents 1 et 2;
- 2) Déléguer le pouvoir à la directrice générale, Direction générale des initiatives stratégiques, et au directeur, Services des changements climatiques et de la résilience, individuellement, d'approuver, de modifier, d'exécuter et de prolonger les ententes liées à la stratégie Parés pour les changements climatiques Ottawa au sein de la Direction générale des initiatives stratégiques, comme décrit plus en détail dans le présent rapport.

EXECUTIVE SUMMARY

Assumption and Analysis

Climate Ready Ottawa is the City's strategy to address the top climate risks facing Ottawa and prepare for a warmer, wetter, and more unpredictable climate.

The strategy is a priority project of the Climate Change Master Plan and responds to [Council's 2023–2026 Strategic Plan](#) objective on extreme weather and climate change.

Ottawa is already experiencing the costly impacts of climate change, from rising heat-related illnesses to severe storms that damage infrastructure and disrupt essential

services. These impacts harm health and safety, strain City services, and drive-up costs.

Climate Ready Ottawa provides the overarching plan to build a climate-resilient Ottawa by 2050, with a five-year action plan for 2026-2030. The strategy shifts the City from a project-by-project response to a proactive approach that prioritizes actions based on the greatest risks. It will protect people, infrastructure, and services while reducing long-term costs and disruptions.

While the City has put in place measures to respond to climate change and extreme weather, more is needed to prepare for escalating risks. These risks include more frequent flooding that damages homes and infrastructure; heat waves that strain health and energy systems; and cascading failures across water, power, and transportation networks from more frequent and severe weather events. Without action, costs will rise, services will be impacted, and the most vulnerable residents will be hardest hit. Proactive adaptation reduces costs, safeguards critical services, and strengthens Ottawa's resilience.

The 2026-2030 five-year action plan focuses on seven priority programs:

1. Flood Preparedness – Reduce flood risks and protect vulnerable neighbourhoods through infrastructure upgrades, community response plans, and community education and support.
2. Cooling Strategy – Expand public cooling features, support heat-vulnerable populations, and integrate cooling in parks, housing, and citywide planning.
3. Community Climate Preparedness – Equip residents and communities to better respond to the adverse effects of climate change and extreme weather with localized programs, resilient home initiatives, and support to at-risk populations.
4. Critical Infrastructure Protection – Safeguard essential services such as water and wastewater treatment from flooding and power outages, and identify and address risks to other critical infrastructure to ensure continued services.
5. Climate-Ready Infrastructure – Ensure new and renewed infrastructure is built to withstand climate impacts through enhanced design standards, innovative pilots, and greater integration of nature-based solutions.
6. Tree and Natural Asset Management – Strengthen the urban forest and protect natural assets with targeted planting, maintenance, and erosion control.

7. Extreme Weather Preparedness and Response – Enhance emergency preparedness and response with specialized plans, training, and partnerships to improve resiliency to severe weather events especially for those most at-risk.

Additional cross-cutting actions integrate climate resiliency into City planning, operations, and budgeting.

Climate Ready Ottawa is a city-wide strategy that embeds climate preparedness across all departments and with community partners. It leverages core competencies and expertise with clear accountabilities, roles and responsibilities to accelerate implementation and address risks and vulnerabilities facing Ottawa and its residents.

The Strategic Initiatives Department provides overall leadership and accountability, including monitoring and reporting to ensure timely implementation. Multiple departments will lead implementation of specific programs and projects. Performance metrics have been identified to track both strategy delivery and effectiveness. A five-year refresh will ensure the strategy manages new and emerging risks and remains effective over time.

The plan includes \$25 million (2025 dollars) in funding needs over five years, in addition to prioritized support through rate funding for flood and water-related projects and programs. Staff will pursue all available external funding opportunities to help offset the City's budget requirements. In addition, departments will review and re-prioritize existing funding, where feasible, to advance resiliency initiatives while minimizing new budget pressures. Budget pressures will be brought forward through the annual budget process, starting in 2026, and considered as part of the Tax Supported Long Range Financial Plan (LRFP).

Strategy Development and Public Consultation

Climate Ready Ottawa has been developed based on a comprehensive analysis of climate projections (2020), a Climate Vulnerability and Risk Assessment (2022), a review of best practices and extensive input from City departments to ensure evidence-based, actionable priorities. A draft strategy was released on Engage Ottawa in 2024. Additional in-person consultation events and targeted sessions with interest holders took place in 2025 to gather more detailed feedback and ensure the strategy reflected a broad range of perspectives.

Collaboration has been essential in developing the strategy. The strategy is the result of coordinated efforts across multiple City departments, with input from other public agencies, community organizations, researchers, the business community, and

residents. Public consultation played a central role, with residents, community groups, and interest holders providing input and feedback that demonstrated strong support for proactive climate action.

Climate Ready Ottawa marks a significant advancement in the City's approach to planning for and responding to climate risks. It reflects a coordinated, city-wide commitment to building resilience. The strategy identifies concrete measures to reduce the most pressing risks and generate evidence needed to prioritize and expand resilience investments over time. [Environment and Climate Change Canada](#) estimates that every dollar spent on proactive adaptation saves \$13 to \$15 dollars in avoided recovery costs. At its core, the strategy shifts the City from reacting to climate impacts to a proactive approach that reduces health and safety risks, protects critical infrastructure, and ensures the continuity of essential services, while strengthening the city's overall resilience and reducing long-term costs.

RÉSUMÉ

Hypothèses et analyse

Parés pour les changements climatiques Ottawa est la stratégie élaborée par la Ville pour traiter les principaux risques climatiques auxquels Ottawa est confrontée et se préparer à un climat plus chaud, plus humide et plus imprévisible.

La stratégie est un projet prioritaire du Plan directeur sur les changements climatiques et elle répond à l'objectif sur les phénomènes météorologiques extrêmes et les changements climatiques du [Plan stratégique 2023-2026 du Conseil](#).

La Ville d'Ottawa subit déjà les répercussions coûteuses des changements climatiques, depuis l'augmentation des maladies liées à la chaleur jusqu'aux violentes tempêtes qui endommagent les infrastructures et perturbent les services essentiels. Ces répercussions nuisent à la santé et à la sécurité, exercent une pression sur les services municipaux et font augmenter les coûts.

La stratégie Parés pour les changements climatiques Ottawa fournit le plan global pour construire une Ottawa résiliente au climat d'ici 2050 avec son plan quinquennal pour 2026-2030. La stratégie fait passer la Ville d'une intervention « projet par projet » à une approche proactive qui hiérarchise les mesures à prendre en fonction des risques les plus élevés. Elle protégera les personnes, les infrastructures et les services tout en réduisant les coûts et les perturbations à long terme.

Bien que la Ville ait mis en place de nombreuses initiatives pour réagir aux phénomènes météorologiques extrêmes et aux changements climatiques, il faut en faire davantage pour se préparer à l'augmentation des risques. Ces risques comprennent des inondations plus fréquentes qui endommagent les maisons et les infrastructures; des vagues de chaleur qui mettent une pression accrue sur les systèmes de santé et sur la filière énergétique et des pannes en cascade dans les réseaux d'eau, d'électricité et de transport dues à des conditions météorologiques extrêmes plus fréquentes et plus sévères. Si on ne prend aucune mesure, les coûts augmenteront, les services en subiront le contrecoup et les résidents les plus vulnérables seront les plus durement touchés. Une adaptation proactive réduit les coûts, protège les services essentiels et renforce la résilience d'Ottawa.

Le plan d'action quinquennal de 2026-2030 met l'accent sur sept (7) programmes prioritaires :

1. Préparation aux inondations – Réduire les risques d'inondation et protéger les quartiers vulnérables grâce à des améliorations apportées aux infrastructures, à des plans d'intervention communautaire et à l'éducation et au soutien communautaires.
2. Stratégie de rafraîchissement – Augmenter le nombre de structures d'ombrage publiques, appuyer les populations vulnérables à la chaleur et intégrer le rafraîchissement dans la planification des parcs, des logements et à l'échelle de la ville.
3. Préparation des communautés aux changements climatiques – Équiper les résidents et les communautés pour mieux réagir aux effets néfastes des changements climatiques et des phénomènes météorologiques extrêmes grâce à des programmes locaux, des initiatives résidentielles résilientes et un soutien aux populations à risque.
4. Protection des infrastructures critiques – Protéger les services essentiels comme le traitement de l'eau et des eaux usées contre les inondations et les pannes d'électricité, et cerner et traiter les risques pour les autres infrastructures critiques afin d'assurer la continuité des services.
5. Infrastructure parée pour le climat – Faire en sorte que les infrastructures nouvelles et renouvelées soient construites pour résister aux répercussions climatiques par l'entremise de normes de conception améliorées, de projets pilotes innovants et de l'intégration accrue de solutions fondées sur la nature.
6. Gestion des arbres et des actifs naturels – Renforcer la forêt urbaine et protéger les actifs naturels grâce à des plantations ciblées, l'entretien et le contrôle de l'érosion.

7. Préparation et intervention en cas de conditions météorologiques extrêmes – Améliorer la préparation et l'intervention en cas d'urgence au moyen de plans spécialisés, de formations et de partenariats visant à améliorer la résilience aux phénomènes météorologiques violents, en particulier pour les personnes les plus à risque.

Des mesures transversales supplémentaires incorporent la résilience climatique à la planification, aux opérations et à la budgétisation de la Ville.

Parés pour les changements climatiques Ottawa est une stratégie à l'échelle de la Ville qui intègre la préparation climatique dans toutes les directions générales et avec les partenaires communautaires. Elle tire parti de compétences et d'expertise de base et définit des obligations de reddition de comptes, des rôles et des responsabilités clairs pour accélérer la mise en œuvre et traiter les risques et les vulnérabilités auxquels font face Ottawa et sa population.

La Direction générale des initiatives stratégiques assure le leadership et la responsabilisation d'ensemble, notamment la surveillance et la production de rapports pour assurer la mise en œuvre en temps opportun. Plusieurs directions générales dirigeront la mise en œuvre de programmes et de projets précis. On a établi des indicateurs de rendement pour suivre à la fois la mise en œuvre et l'efficacité de la stratégie. Une réactualisation quinquennale aura lieu pour s'assurer que la stratégie gère les risques nouveaux et émergents et demeure efficace au fil du temps.

Le plan prévoit des besoins de financement de 25 millions de dollars (dollars de 2025) sur cinq ans, en plus d'un soutien prioritaire par le biais d'un financement par les redevances pour les projets et programmes liés aux inondations et à l'eau. Le personnel recherchera toutes les possibilités de financement externe possibles pour aider à compenser les besoins budgétaires de la Ville. De plus, les directions générales examineront le financement actuel et en redétermineront les priorités, dans la mesure du possible, afin de faire progresser les initiatives en matière de résilience tout en réduisant au minimum les nouvelles contraintes budgétaires. Les pressions budgétaires seront soulevées dans le cadre du processus budgétaire annuel, à compter de 2026, et considérées comme faisant partie du Plan financier à long terme (PFLT) financé par les recettes fiscales.

Élaboration de la stratégie et consultation publique

La stratégie Parés pour les changements climatiques Ottawa a été élaborée en se fondant sur une analyse approfondie des projections climatiques (2020), l'Évaluation de

la vulnérabilité et des risques climatiques (2022), un examen des pratiques exemplaires et les commentaires des directions générales afin de garantir des priorités fondées sur des données probantes et réalisables. Une stratégie provisoire a été affichée sur Participons Ottawa en 2024. D'autres consultations en personne et séances ciblées avec des parties intéressées ont eu lieu en 2025 dans le but de recueillir des commentaires et suggestions détaillés et de s'assurer que la stratégie reflète un vaste éventail de perspectives.

La collaboration a été essentielle à l'élaboration de la stratégie. La stratégie est le résultat d'efforts coordonnés de plusieurs directions générales de la Ville, avec la participation d'autres organismes publics, d'organismes communautaires, de chercheurs, du secteur des affaires et de la population. La consultation publique a joué un rôle central, la population, les groupes communautaires et les parties intéressées ayant fourni des suggestions et des commentaires démontrant un solide soutien à la mise en œuvre de mesures proactives en matière de climat.

La stratégie Parés pour les changements climatiques Ottawa marque un progrès important dans l'approche de la Ville en matière de planification et d'intervention face aux risques climatiques. Elle reflète un engagement coordonné à l'échelle de la Ville pour renforcer la résilience. La stratégie établit des mesures concrètes visant à réduire les risques les plus pressants et à générer les preuves nécessaires pour prioriser et accroître les investissements dans la résilience au fil du temps. Environnement et Changement climatique Canada estime que chaque dollar consacré aux mesures d'adaptation proactives permet d'économiser entre 13 \$ et 15 \$ en coûts de rétablissement évités. À la base, la stratégie fait en sorte que la Ville passe d'une approche réactive aux répercussions climatiques à une approche proactive qui réduit les risques pour la santé et la sécurité, protège les infrastructures critiques et assure la continuité des services essentiels, tout en renforçant la résilience globale de la Ville et en réduisant les coûts à long terme.

BACKGROUND

In April 2019, Ottawa City Council declared a climate emergency ([ACS2019-CCS-ENV-0005](#)), committing the City to a coordinated, city-wide response to reduce greenhouse gas emissions, prepare for climate impacts, and embed climate considerations into all municipal decisions. Council reinforced this commitment in 2020 by approving the Climate Change Master Plan ([ACS2020-PIE-EDP-0014](#)), which provides a strategic framework for both mitigation and adaptation.

Council's [2023-2026 Strategic Plan](#) includes "A city that is green and resilient" as one of four strategic priorities. Climate Ready Ottawa advances two Strategic Objectives under this priority:

Strategic Objective 19 - Extreme weather and climate resilience:

- Strengthened community capacity for climate preparedness and emergency response
- Improved the resilience of City's infrastructure
- Responded to extreme weather events

Support Strategic Objective 18 - Grow and preserve the tree canopy:

- Increased tree canopy in neighbourhoods with low tree cover

The development of Climate Ready Ottawa, Ottawa's climate resiliency strategy, followed a structured three-phase approach:

- Phase One established the foundation by projecting how Ottawa's climate will change over the coming decades. In 2020, the City released regional climate projections ([ACS2020-PIE-EDP-0014](#)) as a joint project with the National Capital Commission and with technical input from Environment and Climate Change Canada. By 2050, Ottawa is projected to be significantly warmer and wetter, with more extreme weather like ice storms and damaging winds.
- Phase Two delivered the Climate Vulnerability and Risk Assessment in 2022 ([ACS2022-PIE-EDP-0019](#)), a comprehensive evaluation of 150 potential climate impacts across health, infrastructure, the environment, and the economy. The assessment identified 40 high-priority risks requiring targeted action, including for example, more heat-related illnesses, greater flood damage, and strains on emergency services as extreme weather escalates. Council directed staff to develop a Climate Resiliency Strategy to address the top risks, advance early risk-mitigation actions, and integrate climate resiliency into major City plans.
- Phase Three (this report) outlines a long-term strategy to build a climate-resilient Ottawa by 2050, supported by a five-year action plan focused on immediate priorities to address the City's top risks. The strategy spans many City services and will be implemented in collaboration with key partners, including conservation authorities, utilities, and community and social service organizations.

Public engagement has been central to the strategy’s development. The City conducted multi-phase engagement between 2022 and 2025 to ensure Climate Ready Ottawa reflects community priorities and local knowledge. Activities included online surveys via Engage Ottawa, open houses (virtual and in-person), webinars, workshops, and facilitated dialogues. All phases were supported by close collaboration across City departments, ensuring technical expertise and operational perspectives were integrated.

Top Climate Risks

While Ottawa is already feeling the impacts of climate change, climate projections indicate there will be more extreme heat, rainfall, and severe weather in the coming years and decades.

The [Climate Vulnerability and Risk Assessment](#) identified 40 high-priority risks to Ottawa across four areas: public health and community well-being, infrastructure, natural environment, and the economy. As outlined below, climate change is already impacting health, safety, well-being, and the economy, with greater impacts expected in the future. It will lead to increased flooding, property damage, service interruptions, and ecological changes. While climate risks impact everyone, certain populations will be disproportionately affected, including lower-income individuals, people with health or mobility challenges, residents living in flood-prone areas, and other populations who face systemic barriers based on social inequities.

Table 1 – Climate Trends and Impacts

Hazard	Trends and Impacts
Extreme heat	<ul style="list-style-type: none"> • 18 heat warning days in 2025 compared to an average of 11 days above 30 degrees • Expect 28 heat days by 2030s (two times more) and 43 days by 2050s (four times more), with more risk of heat exhaustion and stroke • Heat is a silent killer - 595 deaths in British Columbia in 2021 (mostly older adults who lived alone with no cooling), and heat-related emergency visits are on the rise across Canada
Heavy rains	<ul style="list-style-type: none"> • An intense rainstorm in August 2023 impacted multiple Ottawa neighbourhoods and resulted in: <ul style="list-style-type: none"> ○ 525 calls to the City, including 176 flooded basements

Hazard	Trends and Impacts
	<ul style="list-style-type: none"> ○ \$70 million in insured damages ○ 316 million litres of combined sewage overflow into Ottawa River ● Expect 5 per cent more intense rainfall by 2030s and 14% more by 2050s
Riverine flooding	<ul style="list-style-type: none"> ● Severe Ottawa River flooding in 2017 and 2019 ('1 in 50 and 100 year events) resulted in: <ul style="list-style-type: none"> ○ \$2.6 million in direct costs to City ○ \$223 million in insured damages in eastern Ontario and western Quebec ○ Access to water purification plants threatened ○ Chaudière Bridge closed in 2019 ○ 500 homes impacted on Ottawa side of river ● A similar sized flood along the Rideau River would affect 9 areas impacting: <ul style="list-style-type: none"> ○ >900 homes and 2 schools, and restricting safe access to 6 neighbourhoods ('1 in 100 year' event) ● A more frequent flood would impact >400 homes and 1 school, and restrict safe access to 3 neighbourhoods ('1 in 20 year' event) ● Expect more frequent and severe riverine flooding due to multiple factors
Extreme Weather	<ul style="list-style-type: none"> ● Severe flooding, tornadoes, derecho, ice storms, drought, and wildfire smoke in recent years ● \$35 million in additional City costs between 2017 and 2023 for response and recovery ● This included \$24.1 million during the 2022 derecho that: <ul style="list-style-type: none"> ○ severely damaged electrical network, properties, and trees ○ \$720 million in insurance claims ○ 180,000 without power, some for almost two weeks ○ 1,000 City staff and partners supported storm response ● Wildfire smoke – 12 days of elevated Air Quality Health Index in June 2023 with an increase in suspected air-quality related emergency visits in Ottawa hospitals

Hazard	Trends and Impacts
	<ul style="list-style-type: none"> • Expect more frequent, severe, and concurrent weather events – straining emergency response and recovery, and increasing service disruptions and damage • Expect more frequent and longer power outages – stranding people who need elevators or rely on power-operated medical devices, causing loss of perishable foods, and increased carbon monoxide poisoning from unsafe heating and cooking
Shifting seasons	<ul style="list-style-type: none"> • Expect warmer and drier summers, wetter springs and falls, shorter winters with less snow and more freeze-thaw • Increased costs for infrastructure renewals to adapt to changing climate conditions • More illnesses and diseases – more than 4 times increase in Lyme’s disease since 2015; 3 new illnesses • New pests and diseases will damage tree canopy (the Emerald Ash Borer destroyed more than 20 percent of Ottawa’s trees between 2008 and 2017) • Level 3 drought conditions in 2025 led to dry shallow private wells

The Costs of a Changing Climate

Climate change impacts both short and long-term costs. Extreme weather response and recovery cost the City more than \$35 million between 2017 and 2023 ([2024 Annual Report](#)).

Climate Ready Ottawa was informed by costing analysis from the [Financial Accountability Office of Ontario](#). The office projects that without adaptation, municipalities across Ontario will face an additional estimated \$4.1 billion annually—a 16 per cent increase—to operate and maintain existing public infrastructure. Ottawa-specific data, aligned with provincial comparisons, highlights rising costs for building maintenance, road and pipe replacement, and emergency response operations due to both gradual climate impacts and more frequent extreme weather events. As presented in [the 2025 Asset Management Plans](#), Ottawa estimates an additional \$680 million (2025 dollars) in incremental renewal and operating needs in the next decade to adapt existing roads, sewers and buildings to warmer temperatures and more precipitation. This includes the incremental costs to adapt infrastructure during lifecycle renewal (the

most cost-effective timing). These costs do not include projects identified through proactive climate risk assessments of critical infrastructure to maintain critical service delivery.

Proactive adaptation reduces lifecycle costs, service disruptions, and risk to communities. [Environment and Climate Change Canada](#) estimates that every dollar spent on proactive adaptation saves \$13 to \$15 dollars in avoided direct and indirect costs¹. Adapting Ottawa's transportation, water and building assets during lifecycle renewal is estimated to save four per cent or \$36 million by 2100ⁱ.

Taking Early Action

During the strategy's development phase, at Council's direction, staff initiated targeted early actions to address critical risks, enhance organizational capacity, and generate insights to inform and strengthen future planning. These early actions laid the groundwork for the five-year plan and demonstrated the City's commitment to proactive adaptation.

Examples of these early actions include:

- Dedicated risk assessments completed for the drinking water and wastewater treatment plants with comprehensive flood response plans and back-up power plans developed
- Updated Urban Forest Management Plan, Tree Protection By-law and, Tree Planting Strategy (including tree equity analysis)
- Upgrades to backup power systems at sixteen City facilities that serve as emergency reception and lodging sites and three fire stations and,
- Launch of Ottawa Alert - a new public notification system

Staff have also taken steps to integrate climate resilience into major plans, policies, and processes, including the Official Plan, Transportation Master Plan, Infrastructure Master Plan, and Asset Management Plans. Since 2023, a climate lens has been applied to the annual capital budget and corporate risk management, and climate implications have been included in key reports to Committee and Council including climate-related financial risks. This supports climate resilience becoming not only a policy goal, but a

¹ Direct benefits include reduced repair or replacement costs, whereas indirect benefits include broader economic benefits such as avoided losses in labour productivity or income as a result of damaged infrastructure.

core operational practice across City planning.

City Leadership on Climate Change

In April 2024, the City established the Strategic Initiatives department to deliver on Council's top priorities and respond to evolving needs. Climate Change and Resiliency Services leads the City's adaptation and mitigation efforts, advancing the Climate Change Master Plan, Energy Evolution, Climate Resiliency Strategy, and Urban Forest Management Plan.

DISCUSSION

Climate Ready Ottawa and Five-Year Action Plan

Climate Ready Ottawa is the City's long-term strategy to prepare Ottawa for changing climate conditions and meet the 2050 goal of a resilient Ottawa. The strategy is supported by a five-year action plan that identifies priority actions for 2026-2030.

Climate Ready Ottawa is a city-wide strategy that embeds climate preparedness across all departments and with community partners. It leverages expertise across departments with clear accountabilities, roles, and responsibilities to accelerate implementation and address risks facing the city and its residents.

While the City has many programs, policies, and plans in place to prepare for climate change and reduce risks from extreme weather - including investment in critical water and wastewater services and strong emergency management - more is needed to prepare for escalating risks.

Climate Ready Ottawa provides a coordinated plan to protect residents and critical assets, reduce service disruptions, and avoid higher future costs from emergency response, repairs, and claims. The strategy aims to safeguard community health and safety, building community preparedness, and supporting populations who face disproportionate risks.

The strategy will:

- Identify clear, prioritized actions to address the highest risks to lives, property and critical services.
- Enhance governance and coordination across departments and partners to ensure clear accountabilities, roles, and responsibilities, while prioritizing organization-wide risks rather than department by department. This ensures

limited resources are directed toward the greatest risks, improving efficiency and addressing emerging gaps. Assess risks to remaining critical municipal infrastructure to prioritize investments for continued operations and services during extreme weather.

- Support innovation by testing and piloting new technologies and approaches, identifying cost savings and avoided costs, developing business cases, and integrating the findings into capital planning and operations.
- Scale up proven programs to see results more quickly, such as programs that reduce flood risks and protect and grow the trees canopy.
- Leverage existing programs and partnerships, for example to support most at-risk populations.
- Serve as the overarching strategy to guide the integration of climate resiliency into updates of City policies and plans.

Climate Ready Ottawa is organized around four long-term interconnected priority areas.



- **Resilient communities:** Supporting residents and communities to be better prepared for climate risks such as increased flooding, extreme heat, and emerging health risks.

- **Resilient infrastructure:** Designing, maintaining, and updating City buildings, transportation, and water systems to withstand changing climate conditions and provide continued services.
- **Resilient natural environment:** Protecting and enhancing trees and natural systems.
- **Extreme weather preparedness and response:** Enhancing Ottawa's readiness to respond to increasingly frequent and severe climate events.

The four priority areas include long-term objectives and a proposed five-year action plan to tackle urgent priority risks now and set a stronger foundation for future resilience.

Actions focus on all stages of climate risk prevention, mitigation, preparedness, response, and recovery. Additional cross-cutting actions integrate climate resiliency into City planning, operations, and budgeting.

Seven Priority Programs

The five-year action plan translates the strategy's long-term objectives into concrete programs and projects that protect people, infrastructure, and services, while minimizing long-term costs. The plan focuses on the most urgent risks, directing targeted investments to protect critical services and populations. It aligns with Council's recent direction in response to the Climate Change Master Plan audit to use a [new framework](#) to guide investments in high-impact projects that align with Council priorities. The plan will deliver visible benefits to residents and build the foundation for long-term climate resilience. This includes testing and piloting new approaches and technologies to identify proven, cost-effective solutions. Equity is a guiding consideration. Actions are targeted to address the needs of populations most at risk from climate impacts to ensure no community is left behind.

CLIMATE READY OTTAWA PRIORITY PROGRAMS (2026-2030)



Below is a summary of the five-year priorities for each program:

1. Flood Preparedness Program

Purpose: Reduce flood risks and protect vulnerable neighbourhoods through infrastructure upgrades, community response plans, and community education and support.

Led by: Infrastructure and Water Services with Public Works and Conservation Authorities

Expected Results: More homes and neighbourhoods protected from riverine and heavy rains flooding

Five-Year deliverables:

- Proactive targeted public education and outreach in high-risk flood areas
- More backwater valves, sump pumps and water management in homes (Residential Protective Plumbing and Rain Ready Ottawa)
- Flood risk plans for high-risk riverine flood areas (e.g. along the Lower Rideau River) based on updated floodplain maps
- Flood projects installed in neighbourhoods most at risk to heavy rains, including through cost-effective integrated renewal

2. Cooling Strategy

Purpose: Expand public cooling features, support heat-vulnerable populations, and integrate cooling in parks, housing, and citywide planning.

Led by: Strategic Initiatives with Ottawa Public Health, Community and Social Services, Emergency and Protective Services, Recreation and Cultural Facilities Services, Infrastructure and Water Services

Expected results:

- More public cooling features
- Fewer hospital visits in extreme heat periods
- More support to at-risk populations

Five-Year deliverables:

- Targeted outreach to most at-risk to heat on protective measures
- Hydrant misting stations in priority locations
- Cooling options analysis for social housing
- More cooling amenities - misters, shade, drinking water, splash pads and cooled community buildings
- Pilots, policies and partnerships identified to support those most at-risk, including through long-term cooling in buildings
- Coordinated response during heat events

3. Community Climate Preparedness Program

Purpose: Equip residents and communities to better respond to adverse effects of climate change, including extreme weather, with localized programs, resilient home initiatives, and support at-risk populations.

Led by: Strategic Initiatives with Community and Social Services, Ottawa Public Health and Emergency and Protective Services

Expected Results:

- Communities better prepared for climate change and extreme weather
- Proactive support for more at-risk populations
- More climate-ready homes

Five-Year deliverables:

- Public awareness campaigns on air quality, vector-borne diseases, low water and other climate preparedness
- Grants for community groups for climate adaptation and extreme weather preparedness
- Targeted support for priority at-risk neighbourhoods
- Loans for resilient home upgrades

4. Critical Infrastructure

Purpose: Safeguard essential services such as water and wastewater treatment from flooding and power outages and identify and address risks to other critical infrastructure to ensure continued services during extreme weather.

Led by: Infrastructure and Water Services and Recreation and Cultural Facilities Services with Strategic Initiatives, Transportation Services, Emergency and Protective Services

Expected Results:

- Water purification and wastewater treatment plants protected from flooding and extended power outages
- Continued provision of critical services during climate events

Five-Year deliverables:

- Flood protection improvements at the drinking water plants (safe access)
- Redundant power for E-buses
- Upgraded CoGen at ROPEC for electrical resiliency
- Risk reduction plans for remaining 230 critical facilities for water distribution and wastewater collection, public safety and security and continuity of government (as guided by provincial legislation)
- Flood risk plans for critical transit and road networks

5. Climate-Ready Infrastructure

Purpose: Ensure new and renewed infrastructure is built to withstand climate impacts through enhanced design standards, innovative pilots, and greater integration of nature-based solutions.

Led by: Infrastructure and Water Services with Strategic Initiatives & Transportation Services

Expected Results:

- City infrastructure is built or renewed for changing climate conditions
- Pilot projects demonstrate climate benefits and savings
- Nature-based solutions provide multiple climate benefits

Five-Year deliverables:

- Pilot projects for City facilities such as cooling and ventilation upgrades, wind-resistant roofing, battery-storage, heat-resistant road materials, permeable sidewalks or shaded active transportation routes
- Revised design standards and guidelines (Parks, Facilities, Transit, Sewers)
- More nature-based solutions and low impact stormwater solutions

6. Tree and Natural Asset Management Program

Purpose: Strengthen the urban forest in identified priority areas and protect natural assets with targeted planting, maintenance, and erosion control.

Led by: Public Works, Infrastructure and Water Services, and Strategic Initiatives

Expected Results:

- Improved tree canopy in priority areas identified through Tree Equity Score Analysis
- Less tree and forest loss from drought, fire, wind, ice and disease
- Less damage and risks from falling trees and wildland fire
- Reduced risks of erosion on unstable slopes

Five-Year Deliverables:

- More trees planted in priority areas identified through Tree Equity Score Analysis
- Wildland fire risk assessments and risk reduction plans
- More preventative maintenance for trees (pruning and watering)
- New forest diseases tracked and plans developed
- Action plans for erosion and landslides

7. Extreme Weather Preparedness and Response

Purpose: Enhance emergency preparedness and response with specialized plans, training, and partnerships to better manage severe weather and support those most at-risk.

Led by: Emergency and Protective Services, Public Works, and Recreation and Cultural Facility Services

Expected Results:

- Enhanced response and recovery to extreme weather events
- Expanded partnerships and support from private sector and non-profits
- Fewer emergency visits during extreme weather

Five-Year Deliverables:

- Generators at priority community centres & fire stations
- More mobile generators for agile response to power outages
- Updated operational plans for tornadoes, flooding and other extreme weather
- Advanced training, communications and equipment for emergency response
- P3 partnership program established for enhanced response
- Back-up home battery pilot program for medical devices

More details on the long-term strategy and five-year action plan can be found in Document 1.

Governance and Implementation

Climate Ready Ottawa will be implemented through a distributed leadership approach that shares responsibilities across City departments, engages and builds partnerships, and creates conditions for residents to take action.

The Strategic Initiatives Department – Climate Change and Resiliency Services - provides overall leadership and accountability, including coordination, monitoring, and reporting to ensure timely implementation. Multiple departments will lead implementation of specific programs and projects and integrate climate adaptation across service delivery and work planning. Strategic Initiatives Department will ensure alignment with the Climate Change Master Plan, and enable coordination, learning, and knowledge sharing across departments.

The Climate Change Master Plan provides the overarching governance and reporting framework for all City climate initiatives. It includes the following key bodies:

- **Climate Change Executive Steering Committee** – provides strategic direction on climate related initiatives. It consists of the City’s Senior Leadership Team and the Medical Officer of Health.
- **Climate Change Council Sponsor’s Group** – acts as a sounding board as staff advance new climate policies and programs based on Council direction and champions climate change initiatives to Council.

A further governance and accountability framework is being established for the climate change portfolio by the end of 2025 in response to recommendations from the [Climate Change Master Plan audit](#). The framework will assign accountability, roles, and responsibilities for climate change projects across the organization. It will propose additional governance bodies, including a leadership working group across all departments to advance and coordinate climate change initiatives. It also proposes an external working group with community partners, organizations, businesses, and institutional partners. This group will bring together strategic partners to pool resources, coordinate efforts, and drive community-based climate action focusing on priority actions for both climate mitigation and adaptation as identified in the [response to the Climate Change Master Plan audit](#). This targeted approach will help concentrate collective efforts on initiatives with the greatest potential to enhance community preparedness and advance Climate Change Master Plan targets.

Collaboration remains central to the delivery of Climate Ready Ottawa. Implementation will continue through shared accountability among departments and in partnership with conservation authorities, utilities, community and social service organizations, other government agencies and other partners. Specific Climate Ready Ottawa projects will be developed and implemented by departments in accordance with this strategy and through the corporate planning and budget processes.

The Climate Change Master Plan [prioritization framework](#) will be used to guide the selection of projects to be funded with the available Climate Change Master Plan and Climate Ready Ottawa resources. Presented to City Council in September 2025 as part of the response to the Climate Change Master Plan audit, the framework identifies criteria to prioritize City investment in climate initiatives based on impact, reach, effort, and confidence. Actions are focused on areas where the City has the greatest potential to effect change, within its jurisdiction and influence. This ensures that annual funding allocation continues to address top Council priorities.

The strategy will be implemented using an adaptive management approach. While priority projects have been identified, the strategy governance allows agile responses to emerging issues. This could include, for example, additional support for drought, wildfire smoke, and emerging diseases. Demonstration projects and pilot programs also create the space for innovation and learning, with lessons integrated into City planning and policies. By strengthening cross-departmental coordination, building internal capacity, and deepening integration, the City will be better equipped to respond effectively as climate-related challenges escalate.

Budget and Funding Strategy

Building Ottawa's climate resiliency will require significant investment to support both immediate and long-term actions. The City cannot fund this alone. Investment must be shared across multiple parties and partners: individuals, organizations, the private sector, and other government agencies.

City investment will be strategic and prioritized. It will reduce immediate known risks through concrete projects and programs, undertake more refined risk assessments in areas of exposure, such as Rideau River flood areas and remaining critical infrastructure, and build community climate preparedness to reduce pressures on strained City services. These assessments, recognized as a best practice in asset management, will allow the City to estimate future costs, identify vulnerabilities, and ensure Council has the evidence needed to make smart, cost-effective decisions. A key focus will be to identify investments that optimize benefits, reduce long-term costs, and position the City to secure external funding.

Any major infrastructure investments identified in the next risks assessments will be considered in Asset Management Plans and capital budgets, while long-term operational costs will need to be covered through departmental budgets. Staff will continue to pursue external funding opportunities through private sector partnerships and grant applications and explore other possible innovative funding.

In recent years the City was awarded just under \$1 million for successful grant applications to the Federation of Canadian Municipalities Local Leadership in Climate Adaptation program to support feasibility studies to ensure safe access during floods, risk assessments for critical infrastructure, and a permeable paving demonstration project. Ottawa Public Health also secured \$750,000 from Health Canada to advance collaborative projects that reduce health risks from extreme heat. Staff will also continue to support the Mayor and Council to discuss critical funding gaps with other partners and levels of government.

Climate Ready Ottawa identifies \$25 million (2025 dollars) in financial needs over the next five years alongside prioritized Rate funding for flood and water-related projects and programs, as outlined in the following table.

Climate Ready Ottawa investments will address critical gaps and accelerate action. It will support demonstration projects, pilot programs, feasibility studies and plans to identify the most impactful and cost effective long-term solutions.

Five-Year Financial Needs:

Climate Ready Ottawa Program	New Needs	Rate Funding
Flood Preparedness	\$1.25M	\$43.5M
Cooling Strategy	\$4M	
Community Climate Preparedness	\$4.75M	
Critical Infrastructure Protection	\$3.75M	\$40M
Climate-Ready Infrastructure	\$5M	\$26M
Tree and Natural Asset Management	\$3.25M	\$40M
Extreme Weather Preparedness and Response	\$3M	
Total	\$25M	\$149.5M

Staff will be recommending new capital funding as part of the 2026 Budget process to begin implementation of actions outlined above. This will complement the existing Climate Change Master Plan capital budget allocation for Climate Ready Ottawa. Budget pressures will be brought forward through annual capital budget process and coordinated with the City's Long-Range Financial Plans. As noted above, the Climate Change Master Plan prioritization framework will guide the selection of investments in Climate Ready Ottawa, subject to funding availability. To help reduce budget pressures, staff will also pursue all available funding sources, including through internal service efficiencies, external programs and alignment with the long-range financial planning process, and phased requests in future budgets.

City-wide investment in climate change will continue to be tracked through the climate lens on the annual capital budget.

Monitoring and Evaluation

Monitoring and evaluation will track both project delivery (“Are we doing things right?”) and strategic effectiveness (“Are we doing the right things?”) to ensure actions are implemented as planned and achieving intended outcomes. Progress will be reported annually through the Climate Change Master Plan and through an online dashboard. A comprehensive review after five years will assess progress towards long-term objectives, changing climate risks and external trends, and inform the next five-year action plan for Climate Ready Ottawa. Further details on performance metrics are provided in Appendix 3.

Conclusion

Climate Ready Ottawa marks a significant advancement in the City's approach to planning for and responding to climate risks. Under the leadership of the Strategic Initiatives department, this effort reflects a coordinated, city-wide commitment to building resilience and proactive climate action.

The strategy identifies concrete measures to reduce risks today, while setting the stage for prudent longer-term investments. This balance allows the City to deliver immediate improvements to address the most pressing risks and generate evidence needed to prioritize and expand resilience investments over time. By providing a unified framework that integrates efforts across departments, Climate Ready Ottawa strengthens the City's collective capacity to build climate resilience. Achieving these goals requires ongoing collaboration with City departments, community partners, interest holders, and residents, to build a safer, healthier, and more climate-resistance Ottawa for the future.

FINANCIAL IMPLICATIONS

Climate Ready Ottawa complements the existing Climate Change Master Plan and is coordinated with the City Long-Range Financial Plans (LRFP) and will proceed through the City's annual capital budget process. The LRFPs recommend a funding strategy within acceptable affordability parameters. Project timing will be determined based on funding availability. The total estimated requirement is \$174.5M in 2025 Dollars (\$25M New Funding Needs, \$149.5M Rate Funding). To reduce City budget pressures, staff will pursue all available funding sources, including through internal service efficiencies and external programs.

City-wide investment in climate change will continue to be tracked through the climate lens through the annual capital budget process.

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendations in this report.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a City-wide report.

Council received reports on the Climate Projections in 2020 ([ACS2020-PIE-EDP-0014](#)) and Climate Vulnerability and Risk Assessment in 2022 ([ACS2022-PIE-EDP-0019](#)). Council directed staff to develop a Climate Resiliency Strategy to address the top risks, advance early risk-mitigation actions, and integrate climate resiliency into major City plans.

City Councillors were engaged in 2024 in advance of the release of the draft Climate Ready Ottawa on Engage Ottawa.

In 2025, as part of the Response to Audit of Climate Change Master Plan Report, staff engaged Councillors to review the findings of the municipal scan, and the draft Prioritization Framework, gathering feedback to ensure alignment with Council perspectives. Councillors were aligned in their feedback to support climate resiliency and preparedness. Staff also engaged Councillors through the Councillor Sponsors Group meeting and separate Councillor briefings are planned in October to review the draft strategy, discuss proposed actions, and highlight key issues.

CONSULTATION

Between 2023 and 2025, staff conducted multi-phased consultations to help shape Climate Ready Ottawa. Engagement opportunities were promoted through the City of Ottawa Newsroom, social media (including paid promotion), the Climate Change Newsletter, OC Transpo digital ads, the dedicated Engage Ottawa website for the Climate Resiliency Strategy, distribution to Councillors for inclusion in their newsletters and social media channels, and outreach to community partners.

2023 engagement included online webinars, 10 in-person community dialogues, and workshops reaching over 90 targeted groups, —including Ottawa Public Health's Community Engagement Team and the Ottawa Youth Engagement Committee. These sessions shared information and gathered input from residents about climate impacts

and solutions. The [2023 As We Heard It](#) report summarized input from residents who contributed more than 1,000 ideas, which helped to inform the draft long-term strategy, released on Engage Ottawa in March 2024.

In 2024, residents reviewed the draft strategy through an Engage Ottawa survey, which garnered 487 responses, and indicated a very high level of support for the proposed objectives and actions. In 2025, four public Open Houses were held (one virtual, and three in-person). The 2025 open house series reinforced earlier feedback, validating the strategy's long-term objectives and confirming strong community support for both City-led action and support for community preparedness.

Residents provided input on priority areas, highlighting the need for resilient infrastructure and critical services, supporting equity focused supports for individuals and communities most at-risk, investment in urban forests and greenspaces, improved emergency preparedness and clear City leadership with transparent reporting. Engagement consistently confirmed strong public support for preparing infrastructure and natural systems, protecting the most at-risk residents, and embedding resilience into City planning and communities.

Recognizing the importance of reaching diverse audiences, including those more disproportionately at risk to climate impacts, a Climate Equity Working Group was created in 2024 with several City departments and Ottawa Public Health to guide engagement and support to at-risk populations. Based on the guidance from this group, staff conducted targeted outreach in 2025 with groups serving equity-deserving populations including ACORN, the Community Development Framework, the Coalition for Community Housing, and the Ottawa Black Coalition. These discussions highlighted barriers, including cost, limited access to information, and housing constraints, that informed concrete support actions.

This feedback helped inform Climate Ready Ottawa's short-term actions and priorities, ensuring alignment with community concerns and expectations.

ACCESSIBILITY IMPACTS

Equity is a central consideration when building climate resilience to ensure support for those who are disproportionately impacted by climate change. Persons with disabilities may face barriers in accessing communications, resources, infrastructure, or services that respond to climate events. Persons with mobility disabilities, in particular, may face additional risks while seeking refuge during power outages, ice or wind storms, or extreme heat events. Staff collaborated with the City's Accessibility Office staff during

the strategy's development and participated in the City's 2025 AccessAbility Day resource fair to solicit input from the event's participants on their concerns with climate hazards.

Climate Ready Ottawa will support accessibility by ensuring communications and engagement activities consider multimodal communications, sign language and Easy Read formats, as well as abiding by all requirements of the *Integrated Accessibility Standards Regulation 191/11 (IASR)* of the *Accessibility for Ontarians with Disabilities Act, 2005, (AODA)*, the City's Accessibility Policy, and the City's Accessible Formats and Supports Procedure. In addition, implementation will consider that equity scores or indices do not always include persons with disabilities or reflect the many ways in which disability can present, so alternative strategies for ensuring initiatives reach these populations may be necessary. Staff will continue to work with the Accessibility Office during implementation to ensure that programs, services, or upgrades to amenities to prepare for changing climate conditions adhere to the IASR of the AODA, as well as all of the City's accessibility-related policies and procedures and will continue to engage with persons with disabilities and the Accessibility Advisory Committee (AAC).

ASSET MANAGEMENT IMPLICATIONS

Provincial regulation (O.Reg. 588/17 Asset Management Planning for Municipal Infrastructure) requires that municipal asset management plans, covering all City owned assets, consider the actions that may be required to address infrastructure vulnerabilities caused by climate change. The inclusion of a climate lens supports timely and prioritized decision making that minimizes lifecycle asset costs and promotes the long-term affordability of service delivery.

Municipal assets and the services they support face growing risks from the adverse effects of climate change, requiring adaptation to address accelerated deterioration, service disruptions and increased operational and capital costs from more frequent maintenance and renewal.

Climate Ready Ottawa was developed in collaboration with the City's asset management teams to ensure alignment with Asset Management Planning practices.

The 2025 Asset Management Plans identify climate-related risks that could impact levels of service and increase costs, with adaptation measures alone expected to add an estimated \$680 million in capital and operating needs over the next 10 years. These needs are primarily based on incremental costs to upgrade transportation (roads, bridges and culverts), water (pipes and pump stations) and buildings during lifecycle

renewal. They do not take into account projects identified through dedicated climate risk assessments of critical infrastructure (completed outside of lifecycle renewal to mitigate urgent vulnerabilities), damage from extreme weather, or additional climate-related operating or renewal costs for parks, trees and greenspace.

The Asset Management Plans do not prescribe specific funding levels but rather provide a summary of information regarding the current and forecasted condition, performance and costs of the City's infrastructure portfolio to support strategic financial planning and dialogue regarding the appropriate balance between service expectations, affordability and risk of service disruption.

Overall, a 10-year, \$10.8 billion infrastructure backlog, calculated as the difference between the forecasted needs and the planned funding, was identified. As part of asset management best practice, this gap must be addressed over time through policy actions, such as modifying service delivery to make more efficient use of assets or to reduce dependence on assets; adjusting level of service expectations for certain services to better fit available funding; and assessment and agreement to take on more risk for less critical services in order to prioritize funding with critical services for which Council has lower risk tolerance.

The City's long-range financial plans reflect the affordability constraints while advancing investments that prioritize safety and essential service delivery. The updated rate-supported Long Range Financial Plan used the 2025 asset management plans as the starting point for developing a ten-year funding strategy but only addressed those essential needs where the risk could not be mitigated by any other means than investment. It is anticipated a similar approach will be taken for the update of the tax-supported Long Range Financial Plans. The City uses a risk-based approach to prioritize investments, focusing on safety, criticality, and service continuity as part of the annual budget process.

Climate Ready Ottawa applies that risk-based approach by initially focusing on critical infrastructure. As an early action, climate risk assessments have already been completed for the drinking water purification plants and wastewater treatment plant, with priority projects being implemented. Back-up generators have also been installed at City facilities that serve as emergency reception and lodging centres. Climate risk assessments will be completed for the remaining critical infrastructure to identify and prioritize upgrades to mitigate urgent risks, safeguard service continuity, and avoid higher long-term costs from system failures or emergency repairs.

Approximately 230 facilities have been identified including pump stations emergency reception centres and fire stations. Beyond these critical infrastructure risk assessments, Climate Ready Ottawa will test specific infrastructure adaptation measures and examine lifecycle costs and benefits to refine costs for priority infrastructure renewal and enhancement to build resiliency. This information will be considered in capital planning and prioritization processes, future updates to Asset Management Plans, and Long Range Financial Plans.

CLIMATE IMPLICATIONS

Council directed staff to develop a climate resiliency strategy as part of the climate emergency declaration and as one of eight priorities under the Climate Change Master Plan. Climate Ready Ottawa identifies actions to address the greatest climate risks outlined in the 2022 Climate Vulnerability and Risk Assessment, with a focus on risks to people, critical infrastructure, and extreme weather preparedness.

Climate Ready Ottawa will safeguard critical services and populations, enhance adaptive capacity in the City and community, and integrate risk reduction measures across City planning and operations. It provides the overarching strategy to guide integration of climate preparedness into all City plans, including updates to the Official Plan, Master Plans, Asset Management Plans and Long-Range Financial Plans.

It is important to note that building climate resiliency – or preparing for the impacts of climate change – goes hand in hand with continued efforts to meet global emission reduction targets.

DELEGATION OF AUTHORITY IMPLICATIONS

This report recommends that the General Manager, Strategic Initiatives, and the Director, Climate Change and Resiliency Service, individually, be delegated authority to approve, amend, execute, and extend agreements related to Climate Ready Ottawa within the Strategic Initiatives Department, provided that such agreements:

- a. are in accordance with applicable City policies
- b. are related to approved departmental programs and objectives
- c. are within approved budget limits and
- d. contain the appropriate insurance, termination, workplace safety, indemnification, and HST provisions.

The exercise of this delegated authority will be reported annually to the Environment and Climate Change Committee, in accordance with the Delegation of Powers Policy and consistent with the exercise of delegated authority outlined in Schedule L – Strategic Initiatives Department of the Delegation of Authority By-law 2025-69.

ECONOMIC IMPLICATIONS

Ottawa's economy faces several risks because of climate change. The combined impacts of milder winters, hotter summers, and more extreme weather are expected to lead to declining tourism, supply chain disruptions, diminishing agricultural yields, power outages, and slower overall economic growth.

During the development of Climate Ready Ottawa, the City engaged with economic partners including Invest Ottawa, Ottawa Tourism, and business improvement areas, as well as the agricultural community to discuss ways to reduce risks and support economic stability.

The City will continue to collaborate with economic partners through the City's Economic Development Service Area and Rural Affairs and Natural Systems offices to raise awareness of climate impacts and explore options to ensure Ottawa's economy remains competitive and sustainable in a changing climate. The City supports economic development and adaptation through policies, information sharing, and grants to accelerate adoption of adaptive practices.

ENVIRONMENTAL IMPLICATIONS

Climate Ready Ottawa's objectives and actions will have direct impacts on many facets of the environment. This will both reduce the risks to the natural environment from climate change (such as damage from drought, fire or new pests) and protect and enhance the climate benefits they provide (such as heat or flood mitigation). The tree canopy will be enhanced, for example, especially in priority areas as identified through the [Tree Equity Score Analysis](#) and proactive tree maintenance will enhance resilience to drought, wind, and ice storms. Additional components of the natural heritage system (forests, wetlands, watercourses, groundwater, and other sensitive habitats) will be protected through acquisition and stewardship, as well as risk assessments to understand and address fire and erosion. Ottawa's forest health will be monitored and managed for emerging diseases and pests, and shorelines will be protected by complying with planning regulations to avoid hazard lands and floodplains, and nature-based solutions will contribute to local biodiversity.

INDIGENOUS, GENDER AND EQUITY IMPLICATIONS

Building equity is a core consideration of Climate Ready Ottawa. Climate change disproportionately impacts certain populations due to increased exposure to climate hazards or because of systemic barriers as people may have less resources or capacity to adapt. This may include, for example, people who spend long periods of time outdoors (unsheltered populations or people who work outside), people living in basements in flood-prone areas, or people with limited access to air conditioning. It also includes people with limited financial resources, people living alone or those unable to seek help due to language barriers.

Staff formed an equity-based working group with representatives from various departments to guide and advise the development of the strategy and plan.

Climate Ready Ottawa includes actions to develop and deliver tailored communications and engagement activities for disproportionately impacted communities. An equity lens will also be applied to programs, services or infrastructure upgrades that prepare for climate hazards. Building community capacity will be advanced in collaboration with local community development and social service agencies.

Indigenous groups and organizations were contacted early in the development of Climate Ready Ottawa. Staff will continue to engage with Indigenous groups and organizations and consider Indigenous policy implications under the guidance of the City's Gender, Equity, and Indigenous Relations team.

RISK MANAGEMENT IMPLICATIONS

Climate Ready Ottawa is the City's long-term strategy and five-year plan to address climate risks and prepare for greater heat waves, floods, shifting seasons and more extreme weather. Without early adaptation, Ottawa will face escalating risks to its infrastructure, mounting pressures on emergency and social services, and growing challenges in maintaining reliable service delivery. These risks include increased strain on critical systems such as transportation, power, and stormwater management, as well as heightened vulnerability of communities, particularly low income and marginalized groups who bear disproportionate impacts due to exposure, or systematic barriers.

Building Ottawa's climate resiliency will require significant investment to support both immediate and long-term actions. The City cannot fund this alone. Investment must be shared across multiple parties and partners: individuals, organizations, the private sector, and other government agencies. Staff will continue to pursue external funding

opportunities through private sector partnerships and grant applications, and work with Finance to explore innovative financing mechanisms. Staff will also continue to support Mayor and Council to discuss critical funding gaps with other partners and levels of government.

Climate Ready Ottawa will take a risk-based approach that prioritizes investments based on risks to critical infrastructure and services and from pilot projects that test and refine cost-effective technologies and approaches. Multiple studies show that investment in preparedness reduces long-term costs.

Climate risk assessments have been completed for some critical City infrastructure including the City water and wastewater plants, and priority projects are being implemented for flood protection and back-up power. Back-up generators are also being installed in City recreational facilities that serve as emergency reception sites.

Climate Ready Ottawa will undertake proactive climate risk assessments for remaining critical infrastructure and recommend prioritized projects to mitigate urgent risks, safeguard service continuity, and avoid higher long-term costs from system failures or emergency repairs. Approximately 230 facilities have been identified, including pump stations, emergency reception and lodging sites, fire stations and other assets that support water and wastewater management, public safety and security, and continued government services. Major enhancement projects identified through these risk assessments will be considered as part of Asset Management Plans and annual and long-range capital budgets, or through external funding applications.

In addition to the proactive risk assessments for critical infrastructure, the City will adapt other municipal infrastructure through an incremental approach as part of life cycle renewal. This incremental approach is a cost-effective means to ensure City roads, sewers and buildings function in changing climate conditions.

The 2025 Asset Management Plans estimate an additional \$680 million will be needed over the next 10 years in incremental renewal and operating needs to adapt core City infrastructure to warmer temperatures and more rainfall. Based on a percentage increment, this estimate includes transportation infrastructure (roads, culverts and bridges), water assets (pipes and pumps) and buildings due for renewal in the next ten years. Adapting Ottawa's infrastructure during lifecycle renewal is estimated to save four per cent or \$36 million by 2100 in direct costs.

The estimate does not include specific projects identified in the dedicated proactive risk assessments of critical infrastructure, since critical infrastructure may not be due for

renewal in the next 10 years. It also does not include any costs from extreme weather damage such as riverine flooding, severe winds, power outages, smoke, or climate-related operating or renewal costs for parks, trees and greenspace. Some of these gaps are unknown costs (like extreme weather damage), others require further refinement based on testing in the Ottawa context and upgraded design standards.

As noted in the Asset Management Implications section, the Asset Management Plans do not prescribe specific funding levels but rather provide a summary of information to support strategic financial planning and dialogue regarding the appropriate balance between service expectations, affordability, and risk of service disruption.

City investment through Climate Ready Ottawa will be strategic and prioritized. Additional, currently unknown costs will be identified through the Climate Ready Ottawa pilot projects, costing studies and updates to design standards. This will include refinement of priority infrastructure renewal costs based on Ottawa-specific testing and costing studies. A key focus will be to identify investments that optimize benefits, reduce long-term costs, and position the city to secure external funding.

These future investments, such as incremental costs for climate-resilient building retrofits or transportation asset upgrades, will be considered as part of future Asset Management Plans and Long-Range Financial Plans. For example, the 2025 Rate Supported Long-Range Financial Plan (LRFP) includes \$225 million in funding for priority flood and water management programs over 10 years, including incremental investments in appropriately sized culverts to improve resilience.

Additional risk management include use of the Tax Stabilization Reserve, which was updated in 2025 to raise the threshold for anticipated increases in both capital and operating costs related to extreme weather events. Building community climate preparedness also reduces pressures on strained City services.

The strengthened Climate Change Master Plan governance structures will also support ongoing resolution of climate risks as they emerge, providing the forum for City-wide prioritization and coordinated action.

RURAL IMPLICATIONS

Climate impacts of particular concern for rural areas include: reduced agricultural yields from higher temperatures and variable rainfall; more invasive species, pests and vector-borne diseases; dry shallow wells from droughts; riverine and inland flooding; increased

risks of wildland fires; and prolonged power outages, isolation and property damages from extreme weather events.

Rural residents were engaged throughout the development of Climate Ready Ottawa. In 2023, in collaboration with CAFES and West Carleton Disaster Relief, two dedicated climate dialogues were held in the communities of Carp and Burritts Rapids to gather rural perspectives on climate resiliency. Online engagement in 2024 saw strong participation from rural residents, with rural residents being most concerned with extreme weather preparedness and protection of the natural environment.

Rural residents and organizations will be eligible for support through the proposed community climate and emergency preparedness programs, as well as targeted support through the ongoing Rural Clean Water and Green Acres Programs delivered in partnership with conservation authorities. Through the Low Water Response team, the City and Conservation Authorities will continue to monitor water levels and share potential impacts on well drinking water systems. The wildland fire risk assessment will identify forests and natural areas most at risk to fire and develop appropriate mitigation plans. And work will continue on improved ditch alteration and maintenance.

TERM OF COUNCIL PRIORITIES

Council's [2023-2026 Strategic Plan](#) includes "A city that is green and resilient" as one of four strategic priorities. This priority focuses on adapting to a changing climate and ensuring Ottawa's future liveability.

Climate Ready Ottawa advances two Strategic Objectives under this priority:

Strategic Objective 19 - Extreme weather & climate resilience:

- Strengthened community capacity for climate preparedness and emergency response
- Improved the resilience of City's infrastructure
- Responded to extreme weather events

Support Strategic Objective 18 - Grow and preserve the tree canopy:

- Increased tree canopy in neighbourhoods with low tree cover

SUPPORTING DOCUMENTATION

Document 1 – Climate Ready Ottawa.

Document 2 – Appendices to support Climate Ready Ottawa

1.0 Top climate risks

2.0 Climate Ready Ottawa 2026-2030 action plan summary

3.0 Performance measurement

4.0 Public engagement summary (2023-2025)

5.0 Glossary

Document 3 – As We Heard It Report

DISPOSITION

Upon approval of the report by Council, staff from Strategic Initiatives Department, Climate Change Resiliency will oversee the implementation of the five-year action plan working with other departments and community partners. Staff will bring forward budget pressures for Council's consideration through annual budget cycles and the Tax-Supported Long-Range Financial Plan. The Climate Change Master Plan prioritization framework will be used to select investments in Climate Ready Ottawa based on annual budgets. Staff will report back annually through the Climate Change Master Plan and undertake a program review after five years.

ⁱ City of Ottawa. (2024). *Annual report 2023: City of Ottawa* (Report No. 2023-025). Finance and Corporate Services Department.
<https://documents.ottawa.ca/sites/default/files/2023%20Annual%20Report.pdf>