

# Report to Council



**Date:** September 23, 2024  
**To:** Council  
**From:** City Manager  
**Subject:** 2024 Climate Resilient Kelowna Strategy  
**Department:** Climate Action & Environmental Stewardship

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**Recommendation:**

THAT Council receives, for information, the report from Climate Action & Environmental Stewardship, dated September 23, 2024, with respect to the 2024 Climate Resilient Kelowna Strategy;

AND THAT Council adopt the 2024 Climate Resilient Kelowna Strategy as attached to the report from Climate Action & Environmental Stewardship dated September 23, 2024.

**Purpose:**

To review and adopt the 2024 Climate Resilient Kelowna Strategy.

**Council Priority Alignment:**

Climate & Environment

**Background:**

*Previous Council Resolution*

Resolution	Date
THAT Council receives, for information, the report from the Climate Action & Environmental Stewardship Department dated January 22, 2024, with respect to the Climate Resilient Kelowna Strategy key drivers and strategies.	January 22, 2024
THAT Council declare a climate crisis.	October 13, 2023
THAT Council receives, for information, the report from Policy & Planning dated April 3, 2023 with respect to the Climate Resilient Kelowna Strategy: Vulnerability and Risk Assessment and Public Engagement Kickoff.	April 3, 2023
THAT Council receives for information, the report from the Policy & Planning Department dated June 20, 2022, with respect to Climate Modelling: GHG Reduction Targets and Next Steps for Climate Resilient Kelowna Strategy;	June 22, 2022

<p>AND THAT Council direct staff to update the 2040 OCP with new GHG reduction targets as outlined in the report;</p> <p>AND THAT Council direct staff to use these new GHG reduction targets as a basis for developing a Climate Resilient Kelowna Strategy;</p> <p>AND FURTHER THAT the 2022 Financial Plan be amended to include \$95,000 to complete the Climate Resilient Kelowna strategy from Intact Insurance’s Municipal Climate Resiliency Grant program, if successful, or \$80,000 from the Climate Action Reserve should the grant not be approved, as outlined in the report.</p>	
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In recent years, major shifts in climate have made it essential to rethink local climate action planning. The Intergovernmental Panel on Climate Change (IPCC) reported that preventing severe climate impacts requires reducing greenhouse gas (GHG) emissions by 40-45 per cent by 2030 and reaching net zero by 2050 to keep global warming below 1.5 degrees. Governments worldwide, including the Province of BC, set more ambitious emissions reduction targets and outlined plans to meet them. Our community has faced flooding, drought, wildfires, and heat domes due to climate change, leading to a stronger focus on climate adaptation.

Given local governments control or influence over 50 per cent of Canada’s GHG emissions and are on the front lines of many climate impacts, numerous municipalities in BC have answered the call for climate action. On October 16, 2023, Kelowna City Council declared a climate crisis to emphasize the urgency of addressing climate change. Further, as part of the 2023 -2026 Climate & Environment Council Priority, Council set a priority action of completing a new community climate action plan. These factors, along with the 2018-2023 Community Climate Action Plan reaching the end of its life, created the need for a new plan: The Climate Resilient Kelowna Strategy (CRKS).

The first phase of developing the CRKS began in 2021 to model Kelowna’s community GHG emissions and to understand the degree of action that would be needed to align with IPCC recommendations and senior government targets. Following the technical analysis, Council provided the direction to use new community emissions reduction targets (40 per cent below 2007 levels by 2030 and achieve net zero by 2050) in the development of the CRKS. Phase 2 of strategy development involved a Climate Vulnerability and Risk Assessment (CVRA), which was completed throughout 2022 to identify the vulnerabilities and risks Kelowna is exposed to due to a changing climate. The CVRA and GHG emissions modelling study, coupled with input from the public through two rounds of community engagement, shaped the development of the CRKS (Figure 1).

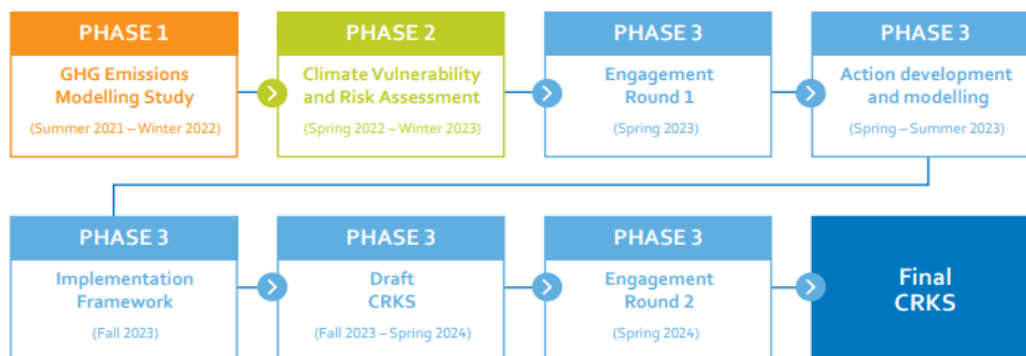


Figure 1: Process for developing the Climate Resilient Kelowna Strategy







## Discussion:





Unlike the previous community climate action plan that concentrated solely on reducing emissions, the CRKS takes a low-emission resilience approach to climate change. This approach integrates actions that both reduce emissions (mitigation) and adapt to a changing local climate (adaptation). It acknowledges that mitigating and adapting to climate change are interconnected efforts essential for confronting the challenges of climate change.

Although the CRKS prioritises climate action, numerous initiatives within this strategy also yield additional benefits that transcend climate concerns. Often, actions aimed at reducing emissions align with those that foster dynamic and resilient urban environments, enhance public health, lower government operational and capital costs, and promote innovation. Therefore, the CRKS strengthens many of the community goals addressed through other City initiatives that are not climate focused.

Based on technical analysis, research, and community/staff engagement, 10 key drivers emerged where the biggest impact can be made to help transition to a low-emission, resilient community. The drivers are broken into 27 strategies, and further into 153 actions the City can take (Table 1). It should be noted that not all actions are new. Many actions identified in other plans (e.g., the Transportation Master Plan), are also included in this strategy as they are critical to helping achieve the City's climate objectives.

Table 1: CRKS Key Drivers and Strategies

10 Key Drivers	27 Strategies	153 Actions
 Reduce reliance on vehicles	Create fast and reliable transit	6
	Create safe, comfortable walking and bicycling routes	17
	Expand shared mobility options	3
	Reduce distance driven by vehicles	2
 Transition to efficient, low-emission vehicles	Increase access to EV charging on private property	5
	Expand the public EV charging network	8
	Support the transition to efficient and zero-emission commercial vehicles and goods movement	5
	Support more fuel-efficient, lower emission driving	6
 Create low-emission, efficient resilient buildings	Support retrofits to create more efficient, low-emission, resilient residential buildings	10
	Support retrofits to create more efficient, low-emission, resilient non-residential buildings	3
	Accelerate adoption of low-emission, efficient new buildings	5
	Increase the resilience of new construction to local climate hazards	3
 Support low-emission and resilient energy supply	Support the transition to a low-emission energy supply	6
	Advocate for increased resilience of the local energy supply	2
 Create complete, compact, resilient communities	Target growth in climate resilient Urban Centres and Core Areas	2
	Apply a climate lens to land-use planning and development policies	8
 Employ nature-based solutions	Protect and restore natural systems providing ecosystem services to reduce climate hazard risk	5
	Utilize green infrastructure to improve climate resilience	4
	Inventory, assess and monitor ecosystems and green infrastructure	6

10 Key Drivers		27 Strategies	153 Actions
	Reduce emissions from waste	Reduce waste generation and increase waste diversion	6
	Increase the resiliency of infrastructure and assets	Infrastructure is upgraded or adapted to withstand the impacts of a changing climate	9
	Improve climate emergency preparedness	Enhance climate emergency response planning	11
		Empower the community to be prepared for climate emergencies	5
	Demonstrate municipal corporate climate leadership	Incorporate Indigenous Knowledge in climate action initiatives	1
		Incorporate a climate lens into municipal governance and operations	7
		Decarbonize City assets and operations	3
		Empower the community to take climate action	5

**Reducing GHG Emissions**

The CRKS strategies and actions have been developed based on the Council endorsed 2030 community emissions targets (i.e., 40 per cent reduction compared to 2007 levels). The modelling demonstrated that if all the strategies and actions are implemented with community uptake, Kelowna can meet the 40 per cent reduction target by 2030. As transportation and buildings are the community’s main emissions sources, they also provide some of the biggest opportunities for reduction (Figure 2).

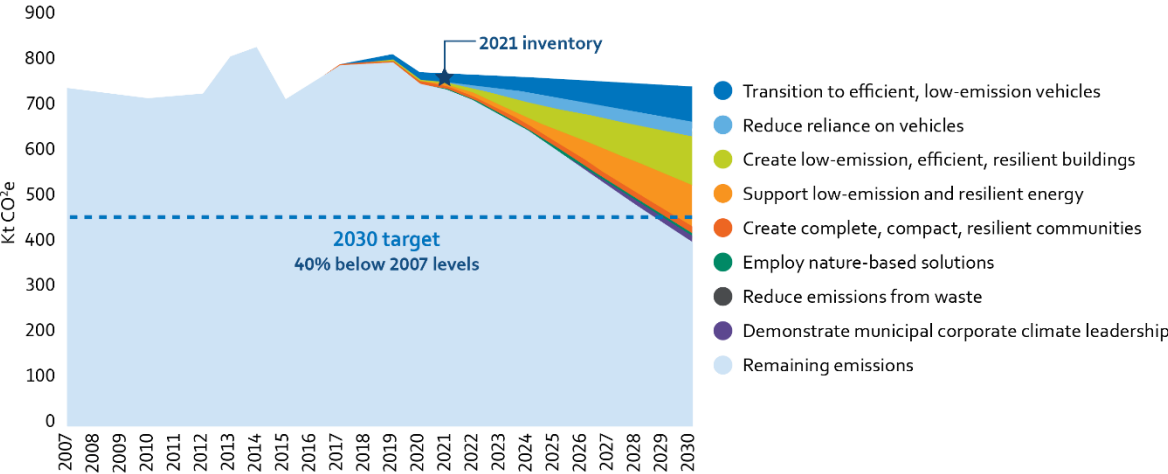


Figure 2: Modelled emissions reductions to meet the 2030 target

**Adapting to a Changing Climate – Addressing Risks and Vulnerabilities**

Reducing emissions is essential to help limit the impacts of climate change, but our community needs to prepare for and adapt to the local impacts that we are already experiencing, and those still to come. The CVRA identified flooding, extreme heat, wildfire, landslides, water security, invasive species, and extreme cold as some of the major local climate hazards.

Through developing the CRKS, potential adaptation actions for all relevant local climate hazards were identified and assessed. Further analysis on select interventions for heat and flooding was completed to understand how these actions could reduce the level of risk for the community. This analysis

demonstrated a significant reduction in people’s exposure to the hazards as well as potential financial savings if actions were implemented. For example, expanding the urban tree canopy and expanding cool or green roofs for new and existing buildings could reduce the population exposed to extreme heat in more urbanized areas by nearly half by 2070.

Actions to adapt and build resilience to local climate hazards are rooted throughout the CRKS. Several Key Drivers are strictly adaptation focused (e.g., Increase the Resiliency of Infrastructure and Assets; Improve Climate Emergency Preparedness), while others address mitigation and adaptation concurrently (e.g., Employ Nature-Based Solutions; Create Complete, Compact, Resilient Communities).

**Conclusion:**

Climate hazards such as wildfire, extreme heat, flooding, and drought are all top-of-mind for Kelowna’s residents. Adapting to and preparing for the impacts of these and other hazards, must be coupled with opportunities to reduce overall GHG emissions. By combining climate mitigation and adaptation efforts as the CRKS proposes, Kelowna can be part of the collective effort to reduce the impacts of climate change, while also becoming more resilient to climate hazards we are already experiencing.

The CRKS marks an important milestone in the transition to a low-emission resilient community; nonetheless, the majority of the effort is still required over the coming years. Table 2 outlines some of the key priorities for initial implementation to enable immediate progress.

*Table 2: CRKS priority implementation actions*

Strategy	Priority Action
Create fast and reliable transit	T1.1 - New Transit Maintenance & Operations Centre (includes infrastructure for electric bus conversion) in alignment with the Kelowna Regional Transit Facility Strategy to facilitate increased transit service (initial focus on Hardy Transit Facility Refurbishment)
Enable active modes	T2.1 – Implement biking projects in the TMP (initial focus on Bertram Street and Rutland Neighbourhood Bikeways) T2.17 - Consider E-bike incentives for certain demographics (e.g., low-income)
Expand the public EV charging network	T6.5 - Expand the off-street Public Level 2 charging network
Support retrofits to create more efficient, low-emission, resilient residential buildings	B1.1 - Expand the Home Energy Coordinator program to support homeowners pursuing energy retrofits B1.7 - Continue to offer incentives for proven low-emission technologies (e.g., CleanBC heat pump top-up rebate)
Accelerate adoption of low-emission, efficient new buildings	B3.2 - Accelerate Energy Step Code and/or Zero Carbon Step Code adoption (initial focus on developing an implementation strategy for higher steps)
Apply a climate lens to land-use planning and development policies	C2.5 - Incorporate climate considerations into development guidelines for buildings and site and develop a process to review and communicate the performance.
Utilize green infrastructure to improve climate resilience	N2.1 - Implement the Sustainable Urban Forest Strategy (initial focus on priority initiatives identified in the August 26, 2024 Council Report)
Decarbonize City assets and operations	CL3.1 - Implement the Strategic Energy Management Plan (initial focus on a High-Performance Building Policy for new City facilities)

**Internal Circulation:**

Building Services	Fire Prevention
Capital Planning & Asset Management	Housing Policy and Programs
Community Communications	Infrastructure Delivery
Cultural Services	Infrastructure Operations
Development Engineering	Integrated Transportation
Development Planning	Long Range Policy Planning
Development Services	Parks & Buildings Planning
Emergency Management	Risk Management
Financial Services	Utility Services
Fire Administration and Finance	Water Quality & Customer Care

**Considerations applicable to this report:*****Existing Policy:***

- 2040 OCP
  - Chapter 12 – Climate Resiliency
- Imagine Kelowna
  - Goal: Take action in the face of climate change

***Financial/Budgetary Considerations:***

The full implementation of the CRKS requires additional funding and resources at various stages. Funding and resourcing options will be investigated and/or budget requests will be made as part of the normal budget cycle when necessary. Each of the major investments will be paired with a metric that measures the value of each investment towards meeting our targets.

In the “Quarter two Amendment to the 2024 Financial Plan” report to Council on August 12, 2024, Council approved spending \$410,000 on various climate initiatives between 2024-2027 using the Local Government Climate Action Program (LGCAP) funding from the provincial government. Staff will continue to utilize LGCAP funds and other funding sources to support implementation of the CRKS actions as needed.

***Consultation and Engagement:***

Public engagement for the CRKS was done in two rounds. Round 1 was completed in Spring, 2023 and aimed to help draft the key drivers and strategies of the CRKS. The outcomes of this round were presented to Council on January 22, 2024. Round 2 of public engagement was completed in Spring, 2024 and provided the public an opportunity to review and provide feedback on the draft CRKS. This round was carried out in conjunction with engagement for the Sustainable Urban Forest Strategy, which was adopted by Council on August 26, 2024. As part of the second round of engagement, the public had an opportunity to provide their input through a survey (hosted from May 15 to June 9, 2024) and two in-person open houses (May 23, 2024 and June 6, 2024). Staff also engaged directly with a CRKS Working Group composed of various interest holders and a Youth Working Group throughout the development of the CRKS.

Attachment 2 provides a summary of what we heard during the second round of engagement.

***Communications Comments:***

Once endorsed by Council, the CRKS will be posted on the City's website, and the Get Involved Kelowna project webpage will be updated to reflect the most current version.

Submitted by:

C. Ray  
Climate Action & Environment Manager

**Approved for inclusion:** R. Smith, Divisional Director, Planning, Climate Action & Dev. Services