

Hail Resilience Program Requirements

This attachment details the recommendation to develop a Hail Resilience Program for The City to best support Calgarians in reducing their risk and strengthen long-term hail resilience across the city. These recommendations are the result of input from research, analysis, engagement and subject matter expertise.

Program Description

A broader Hail Resilience Program focuses on creating a sustainable, coordinated approach to strengthen Calgary's resilience against severe hailstorms by coordinating incentives and resources from insurers, real estate professionals, and builders, while providing targeted education and detailed risk mapping. The program aims to better protect Calgarians' long-term affordability and safety by building a foundation for lasting resilience to the increasing risk of severe hailstorms as opposed to a municipally funded rebate program.

This approach addresses the foundational requirements for hail resilience and builds a self-reinforcing system that leverages resources across multiple sectors. The added values of this program include improved accessibility and informed decision making in resilience improvement investments, contributing to long-term housing affordability for Calgarians.

Program Structure Overview

The program consists of five integrated projects and components that create a comprehensive approach to hail resilience:

Program Project	Description	Cost Estimate
Hail Resilience Improvement Network	<p>The City of Calgary would create and lead a Hail Resilience Improvement Network partnering with insurance companies, real estate firms, builders, contractors, and community organizations. This network will coordinate existing partner incentives and seek to co-develop new ones. The City will provide trusted information, educational materials, and host a digital platform where homeowners can easily find available incentives and qualified contractors.</p> <p>Rather than The City providing direct rebates, this approach leverages resources already in the marketplace. The network would serve as a central hub to coordinate opportunities, identify gaps, develop solutions, and track progress. By aligning sector interest, we can create a self-reinforcing system where resilience improvements become more accessible and affordable for all Calgarians.</p>	<i>\$12,000 operating per year (\$3,000 per quarter)</i>
Targeted Education	Development of targeted educational materials and practical tools on hail risk and benefits of resilience measures for	<i>\$80,000 one-time, annual</i>

and Outreach	homeowners, insurance professionals, real estate agents, builders, and community organizations.	<i>operating for web hosting, hosting events, workshops, and training sessions</i>
Hail Exposure Mapping	An external consultant will develop a detailed hail risk map for Calgary to enhance public awareness, inform planning decisions, and support advocacy efforts. This foundational tool will be periodically updated with new data and evolving information.	<i>\$85,000 one-time operating</i>
Equity Impact Analysis	Research will examine how hail damage impacts communities differently, particularly those with lower property values and incomes, facing compounded negative effects. Understanding these "double burdens" will help The City and Network partners develop more equitable hail resilience strategies.	<i>\$75,000 internal budgets, one time operating.</i>
Policy Advocacy	Efforts to advocate to and work with the Provincial Government to support legislation changes (Municipal Government Act) and program development to financially support private property hail resilience investments and equitable community disaster mitigation efforts.	N/A

Program Budget & Resources

All work in 2025 and 2026 can be completed with existing Climate and Environment resources under the Climate Ready Homes Program.

Program	2025 Q3/Q4	2026	2027-2030
	<i>Existing CEM-2 Budget</i>		<i>Potential New Budget Ask</i>
Operating Costs	\$23K	\$232K	~\$60K/year

Program Implementation Timeline

The program would take a total of 2 years to implement, with continued maintenance of the Network and educational resources as needs permit.

The following table outlines the anticipated steps, timelines, and resources to develop a hail resilience program and complete the identified projects.

PHASE 1 – Preliminary Work (complete)

Year	Quarter	Milestone	Activities	Timing	Resource Estimates	Outcome(s)
2024/2025	Q4-Q1	1. Background research	<ul style="list-style-type: none"> Collect input from related research projects, engagement and academic literature on hail resilience, risk, impacts, and mitigation measures at the residential property level. 	Complete	N/A	Understand best practices, lessons learned, opportunities and risk.
2025	Q1-Q2	1. Cross-departmental review	<ul style="list-style-type: none"> Engage with various City business units to conduct preliminary review. Identify the process, resource needs and timeline to prepare a coordinated hail resilience program for review and approval by Council 	Complete	N/A	Identify opportunities and risks unique to Calgary's context.
		2. Scope full program development process		Complete	N/A	Detailed plan for the development of a program is prepared.

PHASE 2 – Program Development and Network Establishment

Year	Quarter	Milestone	Activities	Timing	Resource Estimates	Outcome(s)
2025	Q4	1. Internal programming development 2. Expand education and communication campaign 3. External partner engagement	<ul style="list-style-type: none"> Complete a program charter and secure program sponsor approval. Establish program governance structure and dedicated staff resources. Initiate engagement and form the Hail Resilience Improvement Network Begin development of new educational materials tailored for specific audiences and communication plan 	1-3 months from start	Operating budget for network coordination: \$3,000 (per quarter) One-time costs for initial educational materials	1. Network participants have achieved consensus on their collective purpose and desired outcomes. All members understand their roles, have actively shaped the group's priorities and direction, and have committed to participation.

		<ol style="list-style-type: none"> 4. Facilitate initial Network Meeting 5. Commission hail exposure mapping 	<ul style="list-style-type: none"> • Support Mayor's office with advocacy letters • Map existing incentives across sectors 		development: \$20,000	<ol style="list-style-type: none"> 2. Initial letters of advocacy submitted to provincial government. 3. Complete database of existing incentives across all sectors. 4. Program governance structure and charter established.
PHASE 3 – Continued Program Development and Implementation						
Year	Quarter	Milestones	Activities	Timing	Resource Estimates	Outcome
2026	Q1-Q2	<ol style="list-style-type: none"> 1. Completion of initial educational materials Initiate equity impact analysis 2. Initiate hail equity impact analysis 3. Complete inventory of existing incentives across partner organizations 4. Launch of coordinated multi-stakeholder outreach campaign 	<ul style="list-style-type: none"> • Develop a partnership between Climate and Environment and Corporate Research with support from Engage and the Equity Program team • Develop initial suite of educational materials about hail risk and resilience measures • Document all existing partner incentives in comprehensive database • Begin commissioning hail exposure mapping and analysis. • Hold regular Network meetings to coordinate efforts • Begin targeted coordinated outreach to priority communities 	4-8 months from start	<p>Operating budget for network coordination: \$3,000</p> <p>Initial educational materials development: \$30,000</p> <p>Begin spending on hail exposure analysis: \$20,000</p>	<ol style="list-style-type: none"> 1. Suite of educational materials ready for distribution 2. Complete digital inventory of all available incentives across insurance, real estate, and building sectors 3. Initial network coordination established with regular communication channels

	Q3	5. Report on initial findings from equity impact analysis 6. Industry specific implementation plans 7. Complete hail exposure mapping	<ul style="list-style-type: none"> Expand Network with regular meetings and working groups Continue implementing educational campaign and engagement tools Continue advocacy efforts with Provincial government Develop monitoring and evaluation framework 	9-12 months	Operating budget for network coordination: \$3,000 Initial equity analysis findings: \$35,000 Education campaign: \$20,000	1. Initial findings and recommendations from equity impact analysis published 2. Coordinated campaign materials in use across all sectors 3. Unified messaging being delivered by all Network partners 4. Increased public awareness of hail resilience options
	Q4	8. Completion of full equity impact analysis 9. Industry-specific implementation plans published 10. First annual program evaluation	<ul style="list-style-type: none"> Complete comprehensive equity impact analysis Develop industry-specific implementation plans with network partners Conduct first annual program evaluation Continue advocacy efforts with provincial government 	13-15 months from start	Operating budget for network coordination: \$3,000 Completion of equity impact analysis: \$40,000 Implementation planning with sectors: \$15,000	1. Full equity impact analysis with actionable recommendations 2. Documented implementation plans for insurance, real estate, and building sectors 3. First annual evaluation report with metrics and recommendations 4. Increased coordination among all Network partners

PHASE 4 – Program Sustainability and Network Expansion

Year	Quarter	Milestone	Scope	Timing (months from start)	Resource Estimate	Outcome
2027	Q1	1. Long-term program sustainability plan	<ul style="list-style-type: none"> Develop sustainability plan for long-term program operations Review program effectiveness and resource requirements 	16-18 months from start	Operating budget for network	1. Comprehensive sustainability plan with long-term funding strategy

			<ul style="list-style-type: none"> Identify ongoing funding sources and responsibilities Begin refining program based on evaluation findings 		coordination: \$3,000 Sustainability planning: \$10,000	<ol style="list-style-type: none"> Defined roles and responsibilities for ongoing operations Refinements to program structure based on evaluation findings
	Q2	2. Updated educational materials	<ul style="list-style-type: none"> Revise and update all educational materials based on first-year feedback Incorporate new research and best practices Update digital platforms with new information Continue network coordination and expansion 	19-21 months from start	Operating budget for network coordination: \$3,000	<ol style="list-style-type: none"> Second generation of educational materials incorporating lessons learned Updated digital resources reflecting current best practices Improved educational resources based on use feedback
	Q3	3. Expanded network with new partners	<ul style="list-style-type: none"> Identify and recruit new categories of partners Integrate new partners into network structure Expand incentive opportunities across sectors Begin planning for second annual evaluation 	22-24 months from start	Operating budget for network coordination: \$3,000 Network expansion activities: \$5,000	<ol style="list-style-type: none"> New partners integrated into Network Expanded range of incentives and resources available Broader reach of Network activities Increased cross-sector collaboration
	Q4	4. Second annual program evaluation	<ul style="list-style-type: none"> Conduct comprehensive program evaluation Assess key metrics across all program areas Document lessons learned and best practices Begin planning for year three priorities 	25-27 months from start	Operating budget for network coordination: \$3,000	<ol style="list-style-type: none"> Second annual evaluation report Documentation of program impact and effectiveness Recommendations for program refinements Plan for year three priorities and activities

Program Reporting Metrics

Program Outcomes	Reporting Metrics
Network Development	<ul style="list-style-type: none"> • Number of participants and organizations • Number of coordinated incentives developed or aligned • Number of network meetings and attendance rates • Partner satisfaction ratings
Education and Outreach	<ul style="list-style-type: none"> • Number of educational materials developed by sector • Website visits and material downloads • Number of outreach events and attendance • Knowledge improvement (pre/post surveys)
Resilience Improvements	<ul style="list-style-type: none"> • Number of new incentives by sector • Number of Calgary homes with hail-resilient roofs and siding (property assessments) • Percentage of new developments and builders using hail-resilient materials • Cost savings from avoided damages (e.g. after hail events)
Equity Measures	<ul style="list-style-type: none"> • Improvement in resilience in priority communities • Percentage of educational resources translated and are culturally appropriate • Accessibility score for materials and events • Number of community-based organizations engaged and supporting priority communities
Policy and Advocacy	<ul style="list-style-type: none"> • Progress on regulatory changes • Media coverage of advocacy efforts • Policy changes implemented • Development of an equitable Provincial Hail Resilience Incentive Program

Program Risks

Risks include:

- Issues with participation of interested parties
- Financial risks around impact resistant material supply chains and other market impacts
- Risk of disparate equity across partner incentives or educational materials between sectors
- Risk of technology or data limitations
- Risk of incentive gaps for proactive households.