Evaluation of the Construction Research Centre: Climate resilience initiatives and the fire safety unit

May 28, 2026

Evaluation focus

The evaluation of the Construction Research Centre focused on 2 elements:

1. **Climate resilience initiatives**: Funded by Housing, Infrastructure and Communities Canada, these initiatives provide science-based guidance, data and tools to strengthen climate resilience of buildings and infrastructure.
   - Climate-Resilient Building and Core Public Infrastructure Initiative, fiscal year (FY) 2015–16 to 2020–21
   - Climate Resilient Built Environment Initiative, FY 2020–21 to 2027–28
2. **Fire safety unit**: Conducts research and provides technical services to support Canadian regulations, enable industry to develop and de-risk innovations, and improve fire safety in the built environment.

Financial resources (annual average)

Climate resilience initiatives
(FY 2016–17 to 2024–25)

- Funding: $9.3 million

Fire safety unit
(FY 2019–20 to 2024–25)

- Revenues: $0.5 million
- Expenses: $4.6 million

Human resources (as of November 2025)

- Climate resilience initiatives: 14 staff
- Fire safety unit: 26 staff

Key findings

Relevance

Both elements align with federal roles and national priorities. The National Research Council of Canada (NRC) is recognized nationally and internationally as a leader in climate-resilient buildings and infrastructure and in fire-safe mass timber and wildland-urban interface fires. Future efforts should prioritize knowledge mobilization to ensure technical research is translated into practical, accessible guidance for end-user.

Organizational capacity

The **climate resilience initiatives** leveraged the NRC's facilities and multidisciplinary expertise. Additional capacity in knowledge translation and cost-benefit analysis would support awareness and strengthen adoption of research-based measures.

The **fire safety unit's** testing facility meets some immediate fire safety needs but lacks capacity for full-scale testing. The closure of the National Fire Laboratory in 2016 reduced testing capacity and the number of industry projects. Expertise is concentrated among senior staff; therefore, succession planning is important to sustain future capacity.

Effectiveness

The **climate resilience initiatives** advanced climate adaptation in buildings and infrastructure by:

- producing more than 200 peer-reviewed publications that advance climate adaptation science
- co-developing future Canadian climate projections that are now integrated into the 2025 National Building Code of Canada and the Canadian Highway Bridge Design Code, making Canada the first country in the world with national design codes based on future climate conditions
- developing more than 20 science-based guides to address critical knowledge gaps. Federally funded programs, design associations and regional governments increasingly use these guides, although limited awareness and cost barriers continue to affect industry uptake
- contributing to 11 standards, 5 updates to the Canadian National Master Construction Specification and 5 updates to National Model Codes
- collaborating with the Canadian Construction Materials Centre to advance the establishment of certifications for climate-resilient construction products

Stakeholder collaboration supported knowledge exchange, capacity building and coordinated action. Continued knowledge mobilization and targeted outreach will support broader adoption across Canada's construction sector.

The **fire safety unit**'s research and testing enhanced fire safety and sustainability in the built environment by:

- producing 63 peer-reviewed publications that advance fire safety science
- developing 6 national fire safety guides, which national organizations reference and wildfire-affected municipalities have adopted
- contributing to more than 30 standards and 6 updates to National Model Codes, with increasing adoption among government and industry
- advancing mass timber fire resilience and structural stability, informing national and provincial building code updates and supporting taller wood construction in Canada

Despite progress in advancing fire safety in the built environment, gaps in awareness indicate a need for enhanced outreach and knowledge mobilization to maximize national impact.

Recommendations

1. Both the **Climate Resilient Built Environment Initiative** and the **fire safety unit** should strengthen knowledge mobilization and outreach to increase awareness and adoption of science based-guidance, tools and standards.
2. The **fire safety unit** should clarify and prioritize its future focus areas based on emerging fire safety priorities, capabilities and expertise, while establishing a succession plan to sustain long-term retention of knowledge retention and technical capacity.

Evaluation approach

The NRC's Office of Audit and Evaluation conducted the evaluation in FY 2025–26 in line with the Treasury Board of Canada's Policy on Results. Methods included document and data reviews, a bibliometric analysis, a stakeholder survey, interviews, case studies and an expert peer review of the fire safety unit.

Visit the NRC website to access the full evaluation report.

Cat. No. NR16-502/2026-1E-PDF
ISBN 978-0-662-39418-1