Engineers Canada's Submission to Consultation on Strengthening Federal Leadership in Emergency Management

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Engineers Canada's position

In serving the public interest, engineers are uniquely qualified and positioned to design and maintain Canada's infrastructure to be resilient and have adaptive capacity to respond to impacts from extreme weather and long-term changes to our climate.

It is imperative that all levels of government engage and collaborate with the engineering profession on adaptation to climate change and extreme weather events for the benefit of the public. The federal government must coordinate and lead disaster response and facilitate emergency preparedness, leveraging the expertise and public trust of engineers.

Climate change and emergency preparedness

Canada is experiencing the effects of climate change more clearly than ever. Research from *Canada's Changing Climate Report* shows that Canada's aging infrastructure is at high risk from extreme weather events driven by climate change, alongside threats to human health, food supplies, and other significant factors.

These climate impacts carry significant economic costs. Over many decades, costs from extreme weather like wildfires, floods, droughts, and storms have been rising significantly. Many parts of our economy including homes, jobs, and infrastructure, are increasingly vulnerable. These rising costs are also evident for households and insurers. For example, The Insurance Bureau of Canada reports that insured weather-related losses exceeded $2.4 billion in 2025.

This increasingly dangerous context calls for national leadership on climate adaptation, including a strengthened federal role in responding to emergencies and making Canada more resilient in the face of disasters. In Canada's federal system, coordination can be a challenge. The federal government must work with provincial and territorial counterparts to facilitate a seamless response to emergencies and to prepare communities and infrastructure in the face of increasing threats from extreme weather events and other disasters.

Recommendations to the federal government

Engineers Canada recommends the federal government focus on the following actionable recommendations as it seeks to define its role in emergency management:

1. Invest in resilient infrastructure and communities

Canada's infrastructure is increasingly stressed by extreme weather, aging assets, and the accelerating impacts of climate change. Federal leadership is essential to help communities upgrade critical systems, such as roads, bridges, water systems, and energy networks, to withstand today's risks and future conditions. Investments in resilient infrastructure reduce long-term costs by preventing damage, shortening recovery times, and avoiding repeated reconstruction. This includes adopting modernized building codes and standards, using climate-resilient materials, and incorporating nature-based solutions such as wetlands and green

infrastructure to manage flooding and heat. By prioritizing resilience across federal programs and funding mechanisms, the government can help build safer, more sustainable communities while reducing the economic and other burdens of climate-related disasters on people, households, insurers, and all levels of government.

2. Engage with provinces, territories, and communities on risk reduction measures

Effective emergency management depends on strong collaboration among all levels of government, and communities. As climate risks grow, the federal government must work more closely with provinces, territories, municipalities, and Indigenous communities to reduce vulnerabilities and ensure coordinated action. Clear federal guidance on risk-reduction priorities, combined with predictable financial support, can help all levels of government and communities take proactive steps such as upgrading infrastructure, improving land-use planning, and strengthening natural defences. By fostering collaboration and aligning efforts across jurisdictions, the federal government can reduce fragmentation, improve preparedness, and ensure Canadians receive consistent and effective support regardless of where they live.

3. Coordinate efforts for emergency management practices across the country and accelerate disaster recovery

Canada's emergency management systems must evolve as disasters become more frequent, intense, and costly. The federal government has a key role in strengthening coordination, improving early-warning systems, and ensuring emergency response is timely and effective nationwide. By improving both response and recovery, the federal government can reduce long-term costs, protect vulnerable populations, and strengthen Canada's capacity to manage an evolving landscape of climate-related emergencies.

4. Continue investing in climate adaptation skills and competencies for professionals engaged in emergency management and disaster recovery

Engineers and other professionals play a critical role in planning, designing, and maintaining the infrastructure and systems that support public safety. As climate risks grow, these professionals need access to up-to-date climate data, tools, and training. Natural Resources Canada's Climate Change Adaptation Program specifically identifies the enhancement of adaptation knowledge and skills across Canada's workforce as a core objective, including targeted investments in training and capacity-building initiatives. Within this program, the Adaptation Skills Working Group brings together federal partners, technical experts, and professional organizations to strengthen the competencies required to incorporate climate change into engineering practice and broader emergency management decisions. Continued federal support for this and similar initiatives will help engineers and other professionals to have consistent access to the training, standards, and applied research needed to design and manage climate-resilient infrastructure.

About Engineers Canada

Engineers Canada is the national organization that represents the 12 provincial and territorial engineering regulators that license the more than 330,000 members of the engineering profession in Canada. As the only national voice for the engineering profession, our organization has a longstanding history of working and collaborating with the federal government to help inform and develop legislation, regulations, and policies.