

CATTALES

e-newsletter of the Institute for Catastrophic Loss Reduction



Institute for Catastrophic Loss Reduction

Building resilient communities

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Climate Proof Canada coalition launches with ICLR as a founding member

A new coalition believes that Canada has the opportunity to better protect people from the growing effects of climate change and help communities prepare for – and adapt to – future challenges, including the increasing risk of climate-related disasters. June 28 marked the launch of Climate Proof Canada, a broad coalition of insurance industry representatives, municipalities, Indigenous organizations, environmental non-government organizations (NGOs) and research organizations. The coalition is encouraging the federal government to take action now to create a culture of preparedness and build a more disaster resilient country.

To address this growing challenge across a massive country, governments need to develop the capacity to better coordinate strategy and implement actions that keep our homes and communities safe from the increasing impacts of severe weather.

That is why the Climate Proof Canada coalition is calling on the federal government to better defend Canadians by:

- Prioritizing the completion of the National Climate Adaptation Strategy, ensuring it protects people and infrastructure from the threat of increased flooding, wildfire, heat, drought and extreme weather events,



with specific recognition of and attention to the disproportionate impacts of these events on Indigenous peoples and vulnerable communities. This strategy should incorporate measurable targets, leverage private-sector capacity and promote nature based solutions;

- Appointing an advisor on national disaster resilience to inform and advise Cabinet and the Prime Minister's Office on the rapidly changing landscape of climate-based and other risks;
- Extending and enhancing its recent work to reduce the risk and impact of flooding across Canada; and
- Ensuring that sustainable finance initiatives help public and private sector organizations assess, disclose and manage escalating physical risks.

Like many countries, Canada is taking steps to reduce emissions as part of its commitment to fighting climate change. This is a crucial undertaking. But Canadians are already seeing and feeling the effects of our changing climate – including more frequent and intense floods, wildfires and hailstorms.

The Climate Proof Canada coalition believes that with prompt and comprehensive government action, Canada can be better positioned to cope with these emerging and accelerating challenges.

Climate Proof Canada Coalition Members

Insurance Industry

Aon
 Aviva
 Desjardins
 Insurance Brokers' Association of Canada
 Insurance Bureau of Canada
 Intact Financial Corporation
 Property and Casualty Insurance Compensation Corporation
 TD Insurance
 Wawanesa

Municipal Government

Federation of Canadian Municipalities

Indigenous Organizations

Métis National Council

Private Sector

Canadian Chamber of Commerce
 Forest Products Association of Canada

Environmental NGOs and Research Organizations

Canadian Association of Physicians for the Environment
 ▶ Institute for Catastrophic Loss Reduction
 Intact Centre for Climate Adaptation
 International Institute for Sustainable Development
 Smart Prosperity Institute
 The Pembina Institute



NRC releases National Guide for Wildland-Urban Interface Fires and accompanying economic impact analysis

On June 28, the National Research Council of Canada (NRC) released the *National Guide for Wildland-Urban Interface Fires: Guidance on hazard and exposure assessment, property protection, community resilience and emergency planning to minimize the impact of wildland-urban interface fires.*

The Guide is a product of the Climate-Resilient Buildings and Core Public Infrastructure (CRBCPI) Initiative of the National Research Council of Canada (NRC) and Infrastructure Canada, which was undertaken to improve the resilience of Canada's new and existing buildings and core public infrastructure (B&CPI) to

the effects of climate change and extreme weather events (e.g., wildfires). As part of this initiative, the NRC identified the need to develop a national guide for WUI fires because of a lack of national guidance addressing the impact of WUI fires on communities and addressing WUI fires in a holistic manner. >

Thus, the objective of this Guide is to provide guidance on how to break the WUI fire disaster sequence at various points. The guidance is intended to enhance life safety and property protection by reducing the wildfire threat posed by the surrounding environment and by enhancing the fire protection provided by structures. To ensure that the development of the Guide was inclusive and consensus-based, an international Technical Committee (TC) composed of experts from government, academia, industry, and consultancy was formed to drive the development process.

This TC included Dan Sandink, ICLR's Director of Research and other ICLR staff that provided supporting roles.

Also on June 28, NRC released an impact analysis for the National guide for wildland-urban-interface fires.

The National WUI Guide provides techniques to increase the resilience of buildings and communities in the wildland-urban interface (WUI). It offers optional combinations of building with non-combustible or fire-resistive material and controlling nearby vegetation. The Guide recommends public measures as well, including strategies related to planning, communication, roads, water, and vegetation management around power lines.

Following the Guide's recommendations creates costs and benefits for building

owners, home buyers, tenants, residents, local government, and others. The impact analysis, sponsored by NRC and produced by ICLR and SPA Risk, provides comprehensive information concerning the Guide's costs and benefits for new buildings, existing buildings, and communities in WUI fire hazard areas across the country.

The National guide for wildland-urban-interface fires can be found [here](#).

The impact analysis can be downloaded [here](#).

NRCan releases *Canada in a Changing Climate: National Issues Report*

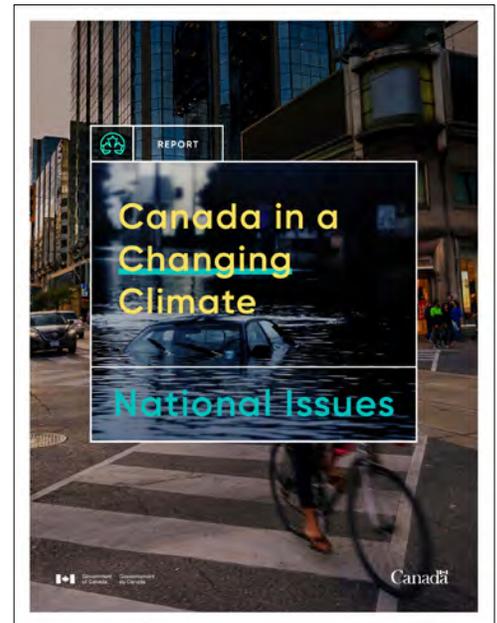
On June 28, Natural Resources Canada (NRCan) released *Canada in a Changing Climate: National Issues Report*.

According to the report's Forward "[W]e are pleased to release the National Issues Report. This report, led by Natural Resources Canada, is part of Canada's National Knowledge Assessment process, *Canada in a Changing Climate: Advancing our Knowledge for Action*. The report provides a national perspective on how climate change is impacting our communities, environment and economy, and how we are adapting to reduce risks. It includes chapters on topics that are of national importance or that benefit from a pan-Canadian perspective, along with case stories featuring examples of adaptation in practice."

The Institute for Catastrophic Loss Reduction was coordinating lead author for Chapter 8 *Climate Disclosure, Litigation and Finance*. The team for this chapter included ICLR Executive Director Paul Kovacs, ICLR Director of Policy Gordon McBean and ICLR Research Associate Bohan Li and also included Gordon Beal, Maryam Golnaraghi and Pat Koval.

ICLR Director of Research Dan Sandink and ICLR Manager of Partnership Development Sophie Guilbault served as contributing authors for Chapter 2 *Cities and Towns*.

The report can be found [here](#).



CCCS produces interactive map of adaptation actions

On June 28, the Canadian Centre for Climate Services, part of Environment and Climate Change Canada (ECCC), released an online interactive map of climate change adaptation actions. Release of the online tool was timed with the release of the NRCan publication *Canada in a Changing Climate – National Issues Report*.

The map allows users to explore case studies from across Canada to see how communities and sectors are adapting to a changing climate.

According to CCCS “The searchable, interactive map began as a way to explore the case stories that are included in reports under the national assessment process, *Canada in a Changing Climate: Advancing our Knowledge for Action*. The map now also includes case studies from a variety of other sources in Canada, including federal programs, provincial and territorial programs, municipalities, Indigenous communities and organizations, non-governmental organizations, and



academia, among others. The case studies are from various regions and sectors, represent different stages of the adaptation cycle, and address a variety of climate-related impacts.”

The project team consisted of the Institute for Catastrophic Loss Reduction, ICLEI

Canada and the Climate Risk Institute (CRI). ICLR also contributed several case studies to the map database, gleaned from the Institute’s *Cities Adapt* series of climate change adaptation case studies (see www.citiesadapt.com).

The interactive map can be found [here](#).

ICLR/Norton release report on I&I reduction

ICLR and Norton Engineering released *Developing an Efficient and Cost-Effective Inflow and Infiltration (I/I) Reduction Program: A Foundational Document for the Development of a National Standard of Canada*.

Inflow and infiltration (I/I) refers to excess clean water that enters existing and new sanitary sewer systems. Excessive I/I has numerous negative consequences, including effects on the environment, public health and safety, as well as acute and ongoing financial impacts for municipalities, insurers, taxpayers and homeowners. Specifically, urban and

basement flooding attributed to excessive I/I in sewer systems is a major cause of flood damage across Canada. The negative impacts of I/I are chronic and widespread across Canada and North America and are expected to worsen as a result of climate change. Further, recapturing capacity in existing sewer systems is increasingly important, as urbanized areas across Canada seek to expand outwards and/or increase infill development.

This report outlines an approach to developing an efficient and cost-effective I/I reduction program that continues

throughout the life cycle of a sewer system. The content of the report is based on the extensive professional experience of the lead author and author team, an extensive review of the existing I/I management literature, and substantial input from the project’s Expert Stakeholder Committee (ESC), composed of municipal and private-sector I/I experts from across Canada and the U.S.

The report can be found [here](#)

Kopp receives ASCE's 2021 Jack E. Cermak Medal

This article appeared in Western Engineering News (June 1, 2021).

The [American Society of Civil Engineers \(ASCE\)](#) recently announced Western Engineering's **Dr. Greg Kopp** as the recipient of its 2021 Jack E. Cermak Medal, recognizing Kopp's outstanding achievements in wind engineering and his many contributions to the field through the research and development of wind load building standards.

The Jack E. Cermak medal was established by the Engineering Mechanics Institute and the Structural Engineering Institute to recognize Cermak's lifetime achievements in the field of wind engineering and industrial aerodynamics.

Kopp, a well-respected and internationally renowned engineer, served a prestigious career at Colorado State University, and was widely referred to as the "U.S. Father of Wind Engineering."

"It is a great honour and truly humbling to be awarded the Cermak Medal, named for one of the founders of our discipline, and to be added to a list of past winners whose research I admired and who influenced my own work," said Kopp, a professor in Western's Department of Civil and Environmental Engineering.



Kopp serves as the [ImpactWX](#) Chair in Severe Storms Engineering and is the lead researcher for the [Northern Tornadoes Project \(NTP\)](#).

Through his work with NTP, Kopp and his team aim to better detect tornado occurrence throughout Canada, improve severe and extreme weather understanding and prediction, mitigate against harm to people and property, and investigate future implications due to climate change.

Kopp works actively to implement research findings into practice, currently serving as Chair of the ASCE 49 Standards Committee on Wind Tunnel Testing For Buildings and other Structures, and as a member of various other Building Code committees. A former Canada Research Chair in Wind Engineering, he is also the

lead researcher for the Three Little Pigs Project at The Insurance Research Lab for Better Homes.

"[Kopp's] understanding of the mechanisms and scaling parameters is second to none in the profession. His work has and will continue to lead to improvements in the way in which codes and standards present wind loading requirements that better match the physical phenomena but are readily and easily implemented in codes or standards." – *ASCE's Civil Engineering Source*

Institute for Catastrophic Loss Reduction

Mission

To reduce the loss of life and property caused by severe weather and earthquakes through the identification and support of sustained actions that improve society's capacity to adapt to, anticipate, mitigate, withstand and recover from natural disasters.

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