CLIMATE CHANGE AND EXTREME WEATHER: WHY CANADA MUST ADAPT (NOW)

Presentation for
Standing Senate Committee on Energy,
The Environment and Natural Resources

Presentation by
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1. Financial and social costs of climate change and extreme weather are going up

2. Canada is developing cost-effective adaptation Standards & programs to limit extreme weather risk

3. Next steps for Canada on Adaptation
It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century (0.08 °C/decade for past 100 years)
Note: Cost to government and homeowners 3-4X that of private insurers.
CHANGE IN ANNUAL PRECIPITATION: SOUTHERN CANADA, 1900 - 2012

Net increase in precipitation over 113 years = +18%
### Average Premiums by Province and PPV/HOM

<table>
<thead>
<tr>
<th>Year</th>
<th>Ontario</th>
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<th>Quebec</th>
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**Trend**

**PPV** = Private Passenger Vehicle insurance  
**HOM** = Homeowners insurance
“It’s something you never want to experience again in your life”

Average time off work following basement flood – 7.1 days
(basement flood now attracting attention of Life & Health Insurers)

Three Years After A Flood: Responses to "How Worried Do You Get When it Rains?"

- Flooded Households
- Non-Flooded Households

% Who Scored 4-5 on Scale of 1-5
NEW SCC/CSA FLOOD & FIRE STANDARDS

Confirmed New Standards

Flood Standard: Basements
Flood Standard: Existing Communities
Flood Standard: New Communities

Forthcoming Standard

FireSmart Standard

Flood Standard: Electricity Transmission & Distribution

National Research Council Canada

Standards Council of Canada

CSA Group
HOME INSPECTION: BASEMENT FLOOD ASSESSMENT

- 9,000 Home Inspectors in Ontario & 40,000 nationally
- Home Inspectors currently receive **virtually no training** on basement flood risk
- basement flood assessment would be applied to nearly all homes during the “buy/sell cycle”, and/or on request by home owner/insurer

Courses in Home Inspection Certificate (Online)

DETAILS AND REGISTRATION BELOW

MANDATORY COURSES

- Roofing Inspection (CNST106)
- Structural Inspection (CNST107)
- Electrical Inspection (CNST099)
- Heating Inspection I (CNST101)
- Heating Inspection II (CNST102)
- Air Conditioning and Heat Pump Inspection (CNST097)
- Plumbing Inspection (CNST105)
- Exterior Inspection (CNST100)
- Interior/Insulation Inspection (CNST103)
- Communication/Professional Practices (COMM052)
Home Flood (Self) Assessment APP – for Canadian Home Owners

- **Purpose**: assess basement flood risk based on “80:20” rule. App would consist of 15-25 questions presented to home owner regarding potential flood risk – much material to draw upon (see below).

- **Characteristics**: “connect to homeowner” using simple tool. **Fast**: 20-30 minutes to complete. **Scalable** – available to all homeowners/insurers.

**Incentive**: App could result in premium adjustment.
"Water damage is now the leading cause of personal property claims. Over the last 10 years, water losses for personal property claims have doubled to 40% (of $ paid in losses). There are a number of improvements that Canadians can take to better protect their homes and communities against water damage. **By taking these steps, Canadians could lower their annual premiums - anywhere from 5 to 15%.** Those who live in municipalities who make climate resilient infrastructure a priority could also benefit from more affordable premiums, higher coverage limits and enhanced insurance coverage.”

...Intact Financial Corporation
NEXT STEPS FOR CANADA ON ADAPTATION

1. New national training for Home Inspectors on Basement Flood Risk Assessment

2. Nationally available Home Flood Self-Assessment App for Home Owners

3. Up-to-Date Flood Plain Maps for Canada