

From: Glen Hodgson

To: Canadian Flood Watchers

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Re: **WHEN WILL CANADA ADOPT BETTER FLOOD RISK MANAGEMENT?**

Hurricane Fiona hit Atlantic Canada and eastern Quebec very hard. Fiona's severe coastal flooding and powerful winds destroyed houses, commercial property and infrastructure, with lives lost and a lengthy recovery period ahead. Insured losses are estimated at up to \$700 million, not including the cost of repairing public infrastructure and uninsured private property.

This was yet another wake-up call on the need for improved flood risk management and climate adaptation, since Canada is going to be hit by other extreme weather events.

And previous wake-up calls have largely gone unanswered. With no plan in place, governments end up assuming an open-ended risk, and related costs, for severe overland and ocean flooding. Owners of uninsured flooded properties inevitably seek bailout financing from governments either to restore the property to a livable state, or to pay for the property to be abandoned.

If an effective pan-Canadian flood risk management plan is to be adopted, some key questions need to be addressed:

1. Should flood coverage continue to be voluntary, or made mandatory like auto insurance? Mandatory flood coverage would expand the risk pool and thus improve the capacity for effective management.
2. How much government involvement is required? Homeowners in high-risk areas may be unable to afford, let alone find, private flood insurance.
3. How can risk be mitigated for properties on flood plains? Ten percent of residential properties in Canada are on flood plains, and climate change is expanding almost all of them. A full array of mitigation measures should be considered, construction prohibitions on flood plains.

Flood risk pooling options have been extensively analyzed, most recently by a [national task force](#) on flood insurance and relocation. It estimated total residential flood risk at \$2.9 billion per year, markedly higher than previous estimates. However, only 40 to 60 percent of Canadian homeowners currently purchase some form of coverage for flood damage. Uptake is concentrated almost exclusively in low- and medium-risk areas, which means that most at-risk properties are not insured.

According to the task force, the mandatory offer of flood insurance by insurers is a fundamental requirement for a successful flood insurance arrangement in Canada, since continued voluntary cover will not produce sufficient market penetration. If left to voluntary adoption and market forces, affordable flood coverage for homeowners in high-risk areas will likely be unavailable.

The report examined four models in detail, with different parameters and implications for promoting flood insurance participation in high-risk areas. In simple terms:

1. Model 1 would create a private sector risk pool for high-risk homeowners, with a significant subsidy from governments to achieve a single and relatively low flat premium cap for high-risk properties.
2. Model 2 builds on model 1 by dividing high-risk homes into quintiles based on estimated home reconstruction costs, with each quintile assigned a premium cap that increases as reconstruction costs increase. Mandatory purchase of flood insurance would be required for properties with a mortgage.
3. Model 3 features a Crown corporation that provides an automatic government backstop for comprehensive flood insurance by the insurance industry.
4. Model 4 introduces a layered approach to public reinsurance. The first layer is the optional purchase of private flood insurance, and the second layer involves the mandatory purchase of flood insurance, with a government risk backstop.

Whatever solution is ultimately selected, there is no silver-bullet option; trade-offs will have to be considered. Government support for high-risk properties via risk-sharing and/or premium subsidies will almost certainly be required. Nevertheless, by shifting public expenditures on flooding from after-the-fact recovery to pre-event risk management and mitigation, governments can better assess the scale of risk and commitment involved, improve fiscal planning, and steadily enhance flood risk management.

That is where analysis meets politics. Beyond program design, political will is required for the federal government and provinces to align around a reasonable policy. Discussions have been ongoing for many years – I did a background study on options for flood risk management five years ago for Public Safety Canada and the Insurance Bureau of Canada. That's a long time to wait for a thoughtful discussion paper, and another indication that flood risk and overall climate risk management is still not being treated as a high priority.

Yet governments inevitably remain the *de facto* backstop for uninsured flooding losses. Indeed, after the recent hurricane, the first impulse for some premiers in affected provinces was to offer compensation for homeowners who were not adequately insured. That might be a popular short-term fix, but it creates poor incentives for forward-looking flood risk management by households and governments.

What will it take to finally adopt a realistic plan for flood risk management? And if not now, when? This is a matter of political will and leadership, not simply finding the best possible technical solution.

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