

A stylized graphic of a winding road in shades of blue and yellow, curving from the top left towards the bottom right. A house icon is shown on the road, with a fire flame at its base. The background is a dark blue gradient with white curved lines.

Close to Home

How to build more housing
in a changing climate

Ryan Ness
Sarah Miller

What's the challenge?



Flooding and wildfire are the greatest climate threats to housing in Canada

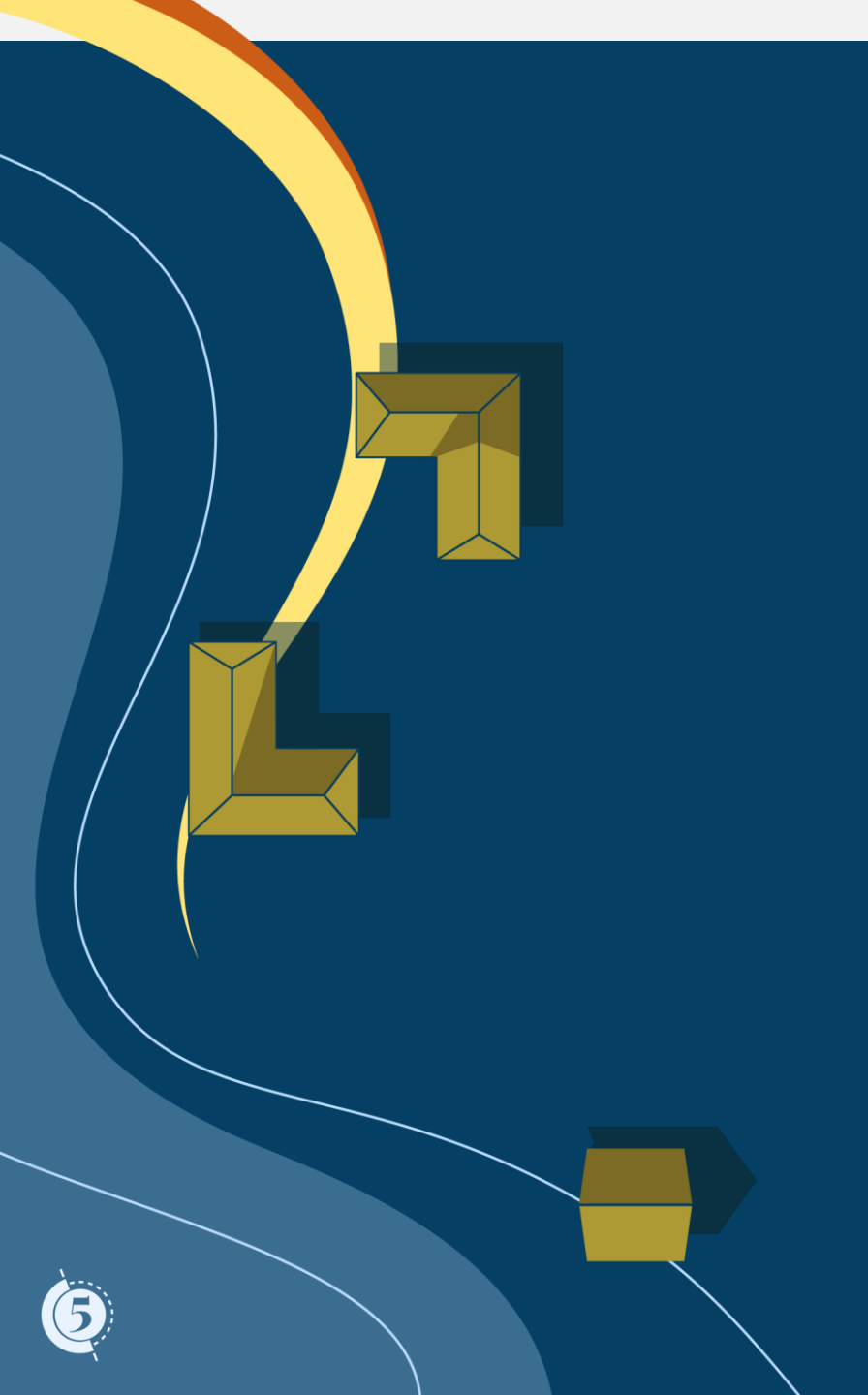


Housing construction **continues** in flood and wildfire hazard zones

Accelerating housing supply stands to **worsen the problem**

The costs will **undermine affordability** for all Canadians





The most affordable home is **the one** you don't have to **keep rebuilding**

Summary



Under existing policies, new homes built in flood and wildfire zones could lead to **billions in annual losses.**



By directing a small percentage of new homes to safer areas, **governments can prevent almost all** of these losses.

Our approach

Projected where **5.8M new homes would be built by 2030** under existing policies



Modelled flood and wildfire risks to **16M existing + 5.8M new homes**

Evaluated existing land use planning, housing, and other policies that **influence development decisions**



Explored **promising policies from Canada and around the world** to reduce risk

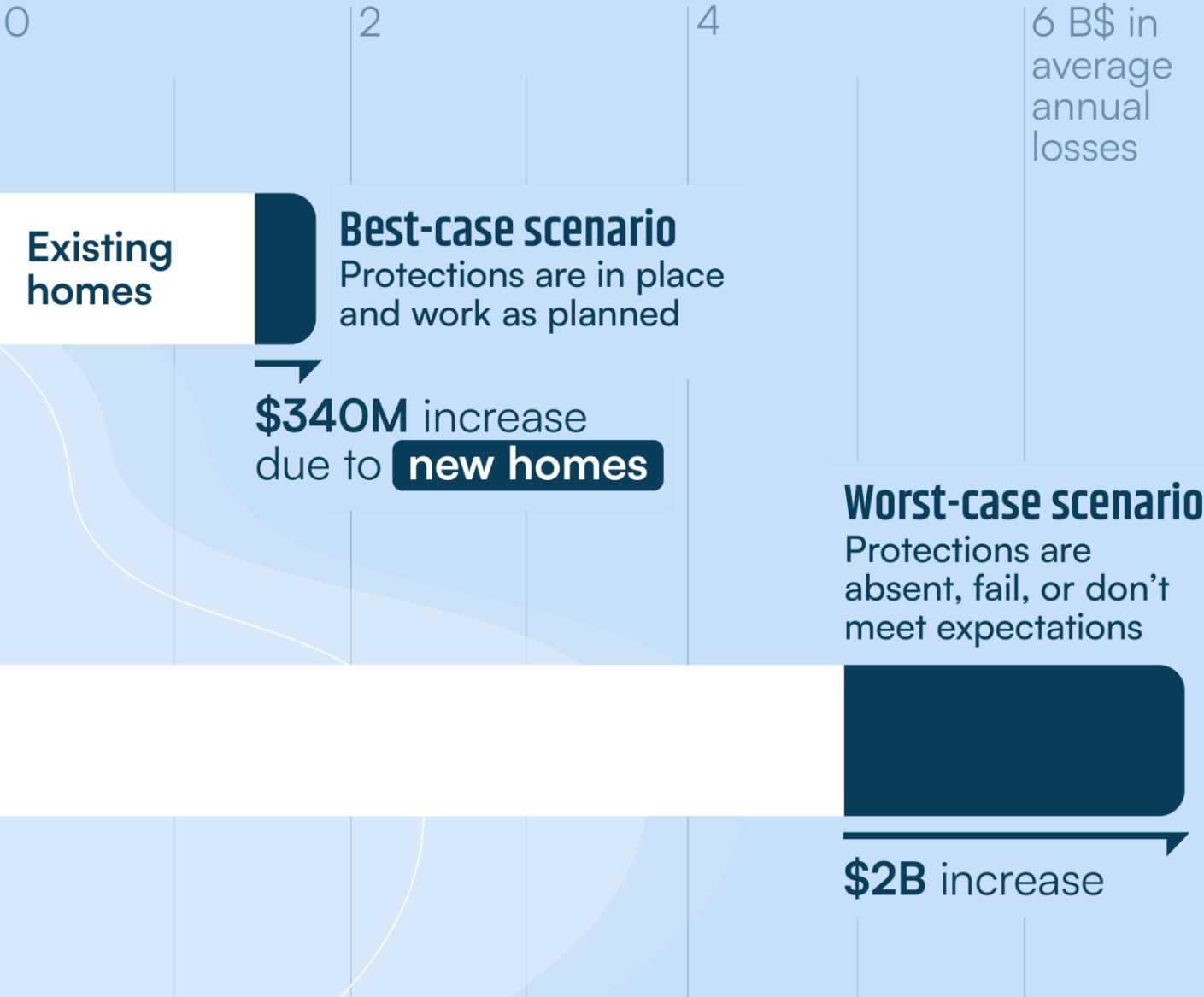


Studied **challenges to Indigenous communities** in building climate-safe housing

Modelling Results

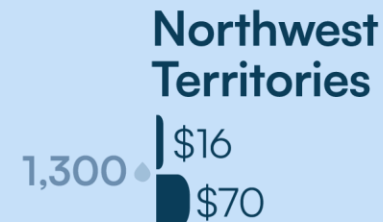
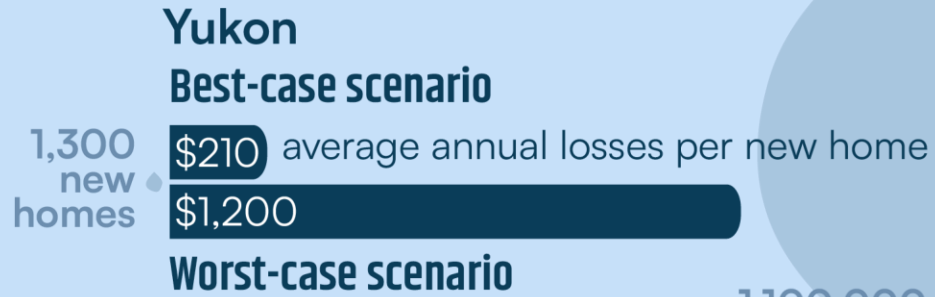


New housing under status quo policies adds major flood risk



Flood risk to new homes will vary across the country

Number of new homes



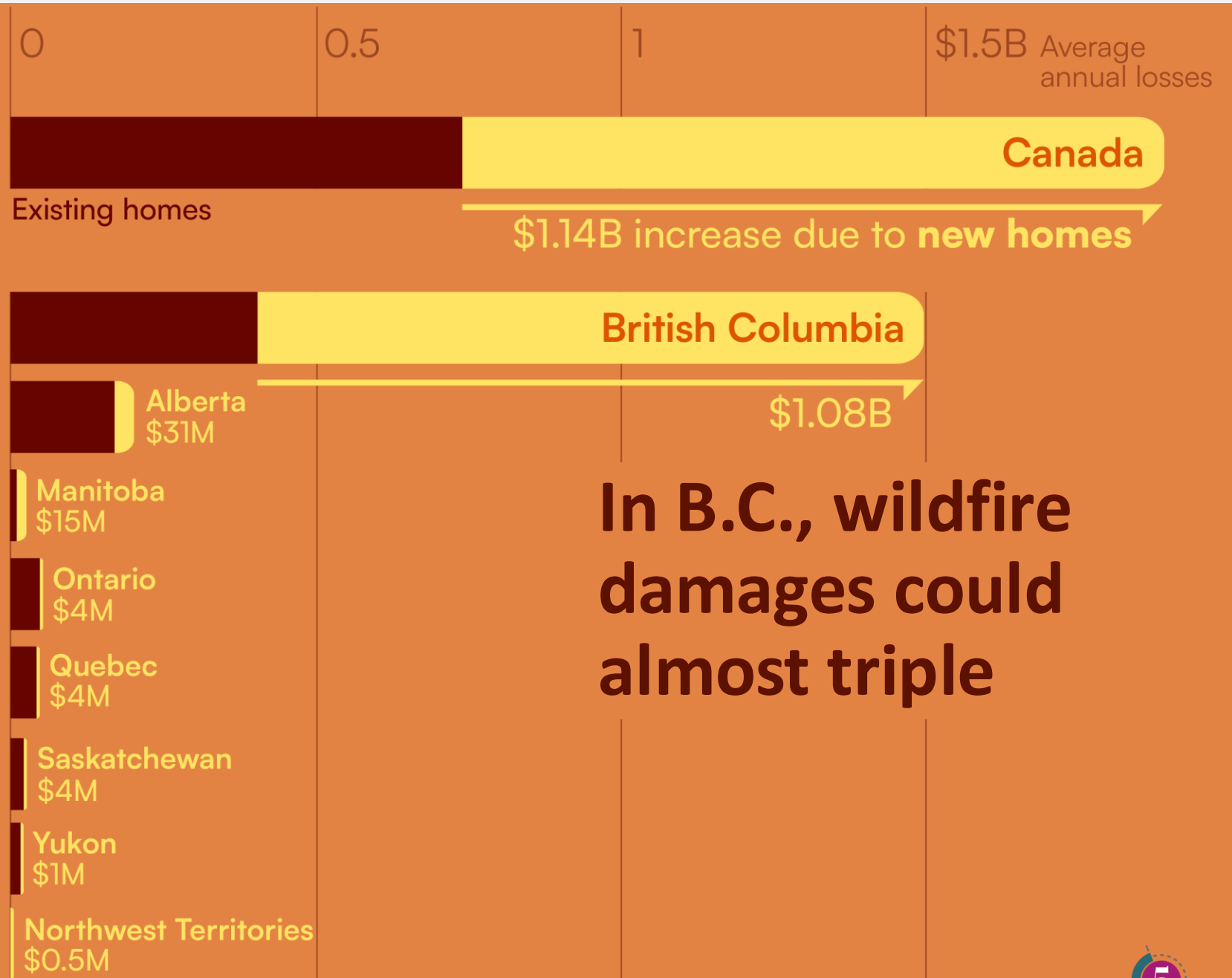
Building a small proportion of new homes on safer ground would reduce new flood damages by almost 80%

Of the **5.8 million new homes** that may be built by 2030 across Canada...

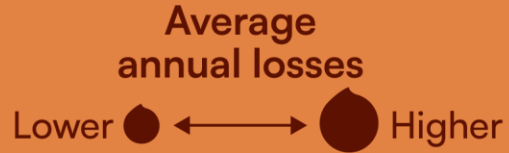
About 10% would be exposed to flooding, under existing policies

About 3% of all new homes would account for up to **78% of all losses**

New housing could more than double wildfire losses in Canada



92% of new wildfire losses could occur in just 20 municipalities



16 municipalities in British Columbia

2 in Northeast
\$280M

9 in Thompson-Okanagan
\$690M

2 in Cariboo
\$18M

3 in Kootenay
\$32M

1 municipality in Manitoba

1 in North
\$14M

3 municipalities in Alberta

1 in Athabasca-Grande Prairie-Peace River
\$5M

1 in Lethbridge-Medicine Hat
\$6M

1 in Banff-Jasper-Rocky Mountain House
\$6M



All other municipalities
\$88M

Challenges and opportunities



Permissive land use policies allow risky development

- Most provinces and territories do not use their full authority
- Existing regulations often set the bar too low
 - Municipalities face significant barriers to managing risky development
 - Governments rely on uncertain risk mitigation for new homes

Strong and consistent land use regulations can direct development away from high-hazard areas



Misaligned housing and infrastructure policies can drive unsafe construction

- Housing targets and incentives may **push development into high-risk areas**, undermining affordability
 - Infrastructure funding often **ignores climate risks** to the housing it enables

Global best practices integrate climate hazards into housing and infrastructure funding



Disaster programs
create moral
hazard

- Disaster assistance programs enable development in high-hazard areas
 - National public flood insurance could encourage dangerous housing choices

Well-designed
disaster assistance
and public
insurance rules
reduce moral
hazard



Inadequate hazard mapping prevents safer decision making

- Municipalities and the public lack key hazard information
 - Inaccessible maps and no disclosure leave homebuyers uninformed

**Making hazard
information
accessible and
transparent
empowers better
housing decisions**



Indigenous communities face barriers and challenges



- On-reserve communities face **acute housing needs** and **significant climate impacts**
 - There is a **unique governance context** and major **funding and capacity issues**

Programs that empower local actions and decision making are having some success



Conclusions and Recommendations



CONCLUSION

1 

Damages to new housing from flooding and wildfire are on track to cost households and taxpayers **billions**



CONCLUSION

2

Permissive land use policies are a **primary driver** of risky housing construction



CONCLUSION



Steering development away from high-hazard areas can dramatically **reduce losses without limiting housing growth**



CONCLUSION

4

Other policy gaps also **drive unsafe housing development** when land use policies are permissive



CONCLUSION

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A lack of information
about climate risk
**hampers smarter
housing decisions**



CONCLUSIONS

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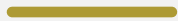
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A lack of information about climate risk **hampers smarter housing decisions**

RECOMMENDATIONS

Federal, provincial, and territorial governments should **steer housing and infrastructure investment** to low-hazard areas and **away from high-hazard zones**



RECOMMENDATIONS

Provincial and territorial governments should **strengthen land use policies** to direct new housing away from high-hazard zones

RECOMMENDATIONS

Federal, provincial, and territorial governments should **reform disaster assistance programs** to deter risky development

RECOMMENDATIONS

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Federal, provincial, and territorial governments should urgently **update hazard information** and **mandate its disclosure** in real estate transactions

RECOMMENDATIONS

The federal government should **empower and support Indigenous communities** to build climate-resilient homes in safe areas

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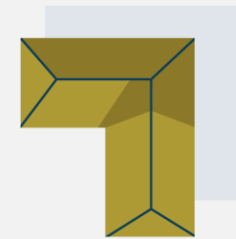
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