

Global Water Futures Annual Science Meeting
June 6, 2018



The Impacts of Extreme Precipitation Events on the Insurance Industry

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Background

- Independent & 100% Canadian
- CatIQ delivers:
 - Detailed analytical insured loss & exposure estimates
 - Meteorological & event information
- Created to serve insurance and reinsurance industries
- Host the annual Canadian CAT conference



CatIQTM
CONNECT

CatIQ's 4th Annual Catastrophe Conference
New name, same great event!

SAVE THE DATE
February 4-6, 2019
Metro Toronto Convention Centre

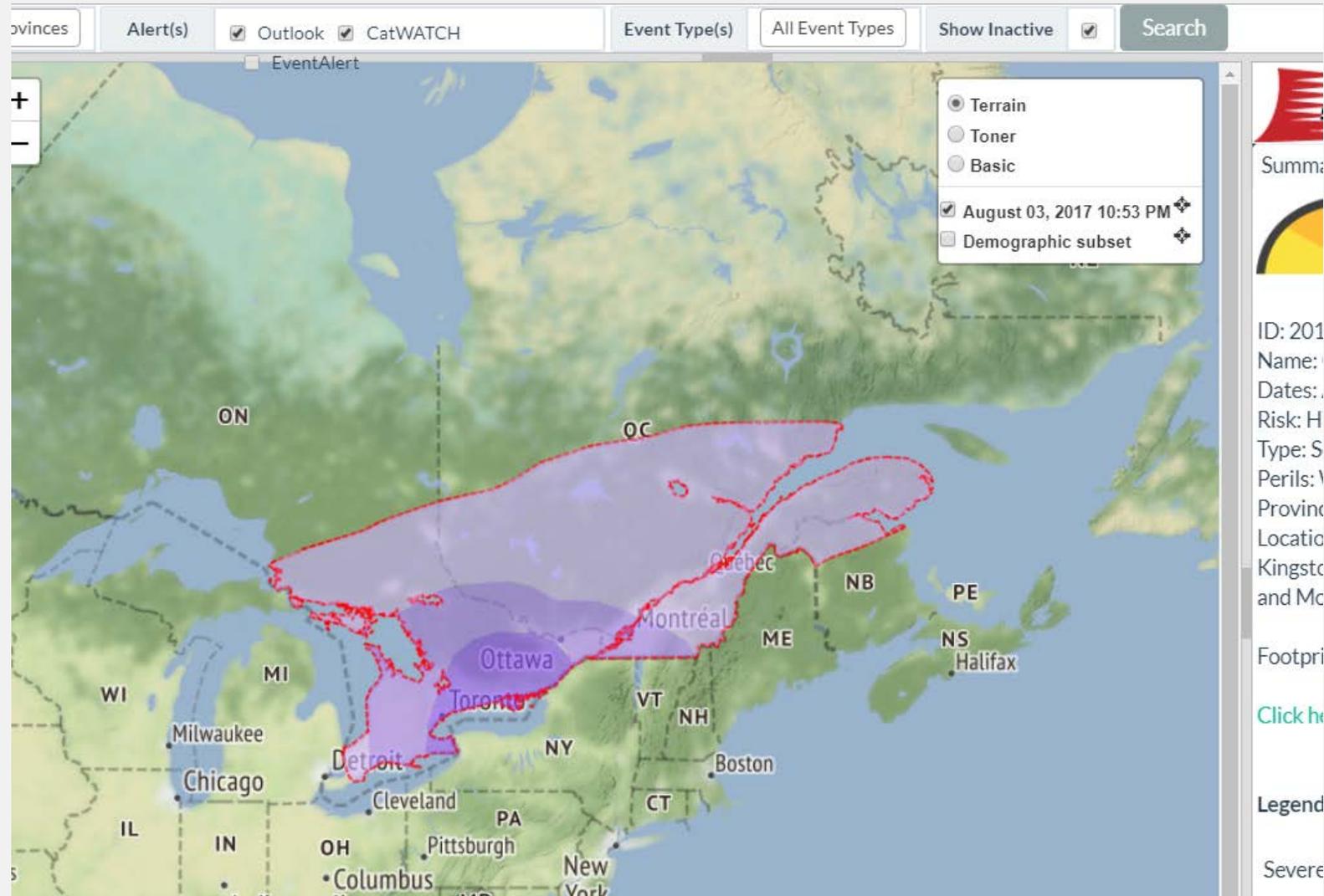
2018/2019

Advisory Committee

- Glenn McGillivray, Managing Director, ICLR
- Paul Cutbush, SVP Catastrophe Management, Aon Benfield Analytics
- Sean Russell, Managing Director, Guy Carpenter Ltd.
- Eric Steen, EVP, JLT Re, Canada
- Chris Rol, Senior Policy Advisor, IBC
- Rebecca Wagner, Manager, Prediction Services Operations – Central Region, Meteorological Service of Canada, Environment and Climate Change Canada
- Jennifer Savoy, Senior Policy Advisor, Public Safety Canada
- Alison Porter, SVP, Head of Treaty, SCOR
- Mazdak Moini, VP Commercial Lines & Reinsurance, Aviva Canada
- Alex Todd, Property and Special Risks Executive Canada, AIG
- Kim Court, Director, Catastrophe Exposure Analysis, Northbridge Financial Corporation
- Steve Johnston, Director, Corporate Reinsurance, The Co-operators
- Balz Grollimund, Head Treaty Underwriting, Swiss Re

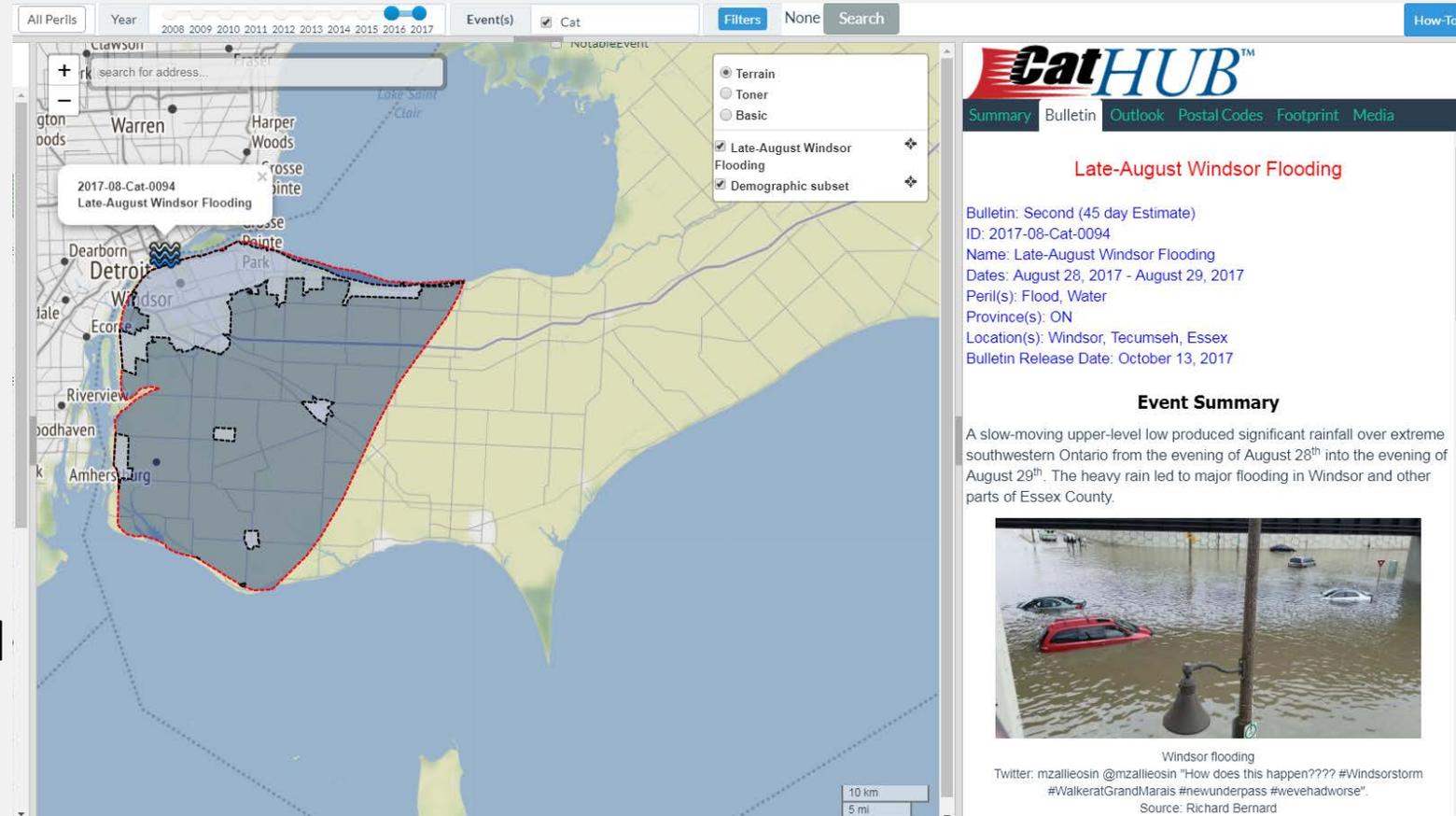
Background

- CatIQ tracks & monitors situations which may develop into catastrophic events (WxWATCH)



Background

- Should an event cause significant property damage (>\$25M industry losses) CatIQ declares it as a CAT (if not – NE (notable event) or nothing)
- Within 1-2 days CatIQ produces a descriptive bulletin, collects associated media and creates GIS footprints related to the event



The screenshot displays the CatIQ web application interface. On the left, a map shows the Windsor, Ontario area with a red-shaded flood footprint. A tooltip for event '2017-08-Cat-0094 Late-August Windsor Flooding' is visible. The top navigation bar includes 'All Perils', 'Year' (2008-2017), 'Event(s)', 'Cat', 'Filters', 'None', 'Search', and 'How-To'. A legend on the right lists 'Terrain', 'Toner', 'Basic', 'Late-August Windsor Flooding', and 'Demographic subset'. The right sidebar features the 'CatHUB' logo and navigation tabs for 'Summary', 'Bulletin', 'Outlook', 'Postal Codes', 'Footprint', and 'Media'. The main content area displays the event title 'Late-August Windsor Flooding' and a detailed bulletin: 'Bulletin: Second (45 day Estimate) ID: 2017-08-Cat-0094 Name: Late-August Windsor Flooding Dates: August 28, 2017 - August 29, 2017 Peril(s): Flood, Water Province(s): ON Location(s): Windsor, Tecumseh, Essex Bulletin Release Date: October 13, 2017'. Below this is an 'Event Summary' section with a descriptive paragraph and a photograph of flooded cars. A Twitter link and source information are provided at the bottom of the summary.

Background

- Insurers are given 10 business days to report back their incurred losses related to the CAT (best view of ultimate incurred before reinsurance)
- Estimates are aggregated to produce industry-wide estimates
- Re-surveys @ **45, 90, 180 & 365 days + 2 year re-surveys on CATs > \$500M**

Province	Line of Business	Claim Count	Case Incurred + IBNR (\$)	Total Incurred	ALAE (\$)
AB	Personal Property			0	
	Commercial Property			0	
	Auto Property			0	
Total AB		0	0	0	0

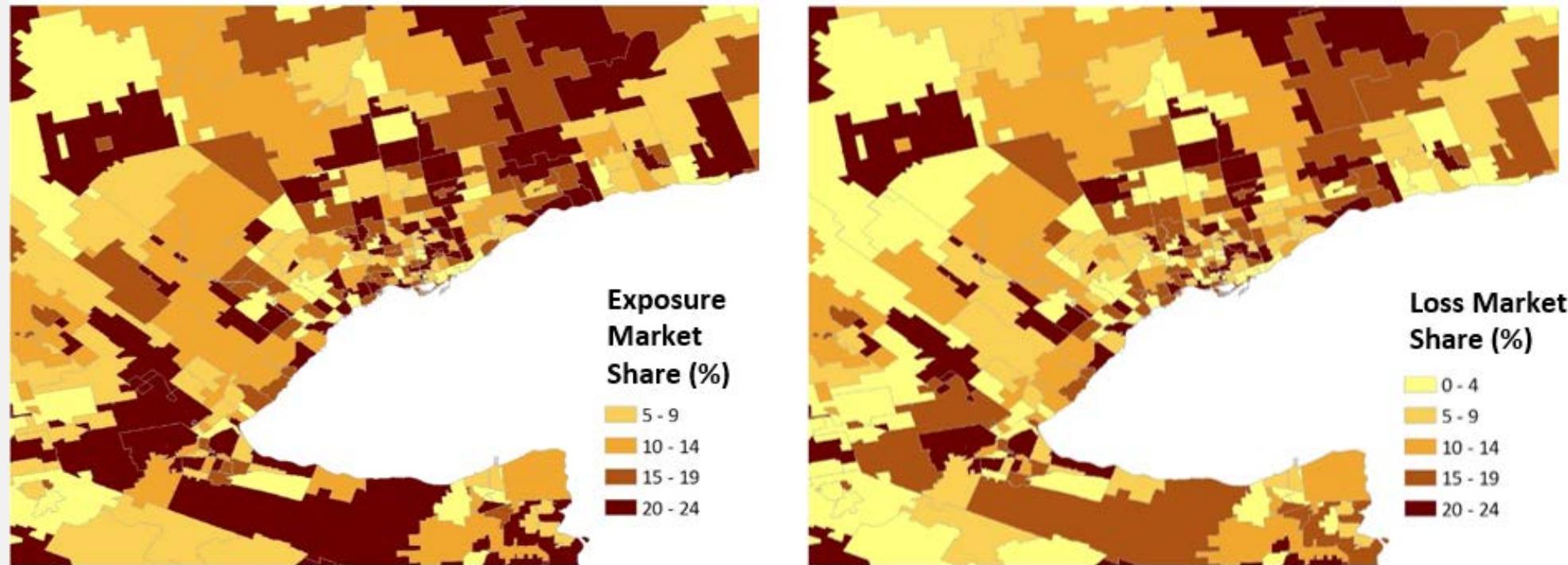
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Province	Line of Business	Closed Claim Count	Closed Claims Incurred (\$)	
NB	Personal Property			
	PD			
	Non PD			
	Sewer Backup / Water			
	Commercial Property			
	PD			
	Non PD			
	Large(>500K)			
	Small(<500K)			
	Auto			
	Total NB		0	0

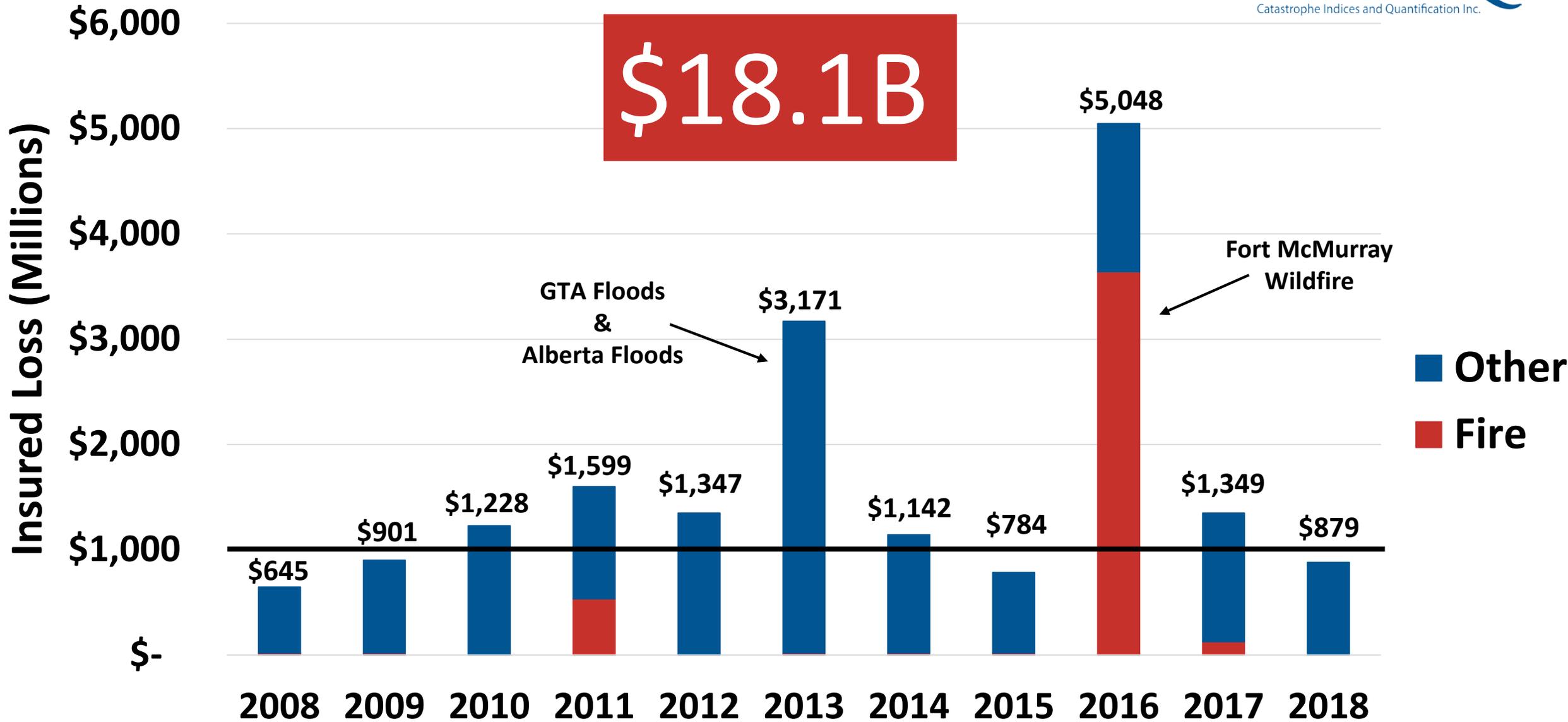
Background

- Insurance Industry Exposure Database and FSA-Level Industry Loss Estimates – Coming soon!



Why does the insurance industry care about climate-related precipitation extremes?

Canadian Catastrophes 2008-2018



*Includes NEs

**as of June 5, 2018

Important Weather & Climate Extremes



Flooding.

“...a significant winter storm and flood event, which affected parts of Southern Ontario and Quebec, resulted in more than \$57 million in insured damage, according to CatIQ.” - IBC

“Insured damage from an early-May windstorm affecting Ontario and parts of Quebec topped \$410 million ...according to CatIQ” – IBC



Windstorms.



“...more than \$190 million in insured damage, according to CatIQ” – IBC

Ice Storms.



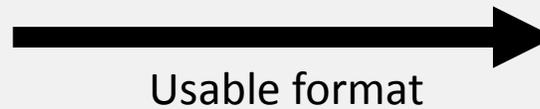
Severe Thunderstorms.



Wildfire.

Useful Future Climate Information

- Areas of changing variables with return periods and intensities
 - Snowpack
 - Spring flooding
 - Wildfires
 - Severe thunderstorms
 - Hail
 - Flash-flooding
 - Large-scale flooding (stalled/slow-moving lows)
 - Significant ice accretion
 - Drought



- Underwriting/Pricing
- Monitor exposure
- Adjust reinsurance program

Contact Information



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