

# Module 1: Legal Framework for Climate Change Adaptation

**LEGAL IMPLICATIONS OF CLIMATE CHANGE  
FOR PROFESSIONALS**

**WORKSHOP**

**Hosted by: Fraser Basin Council & Engineers and  
Geoscientists BC**

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Joanna Kyriazis, Zizzo Strategy Inc.

Deborah Carlson, West Coast Environmental Law



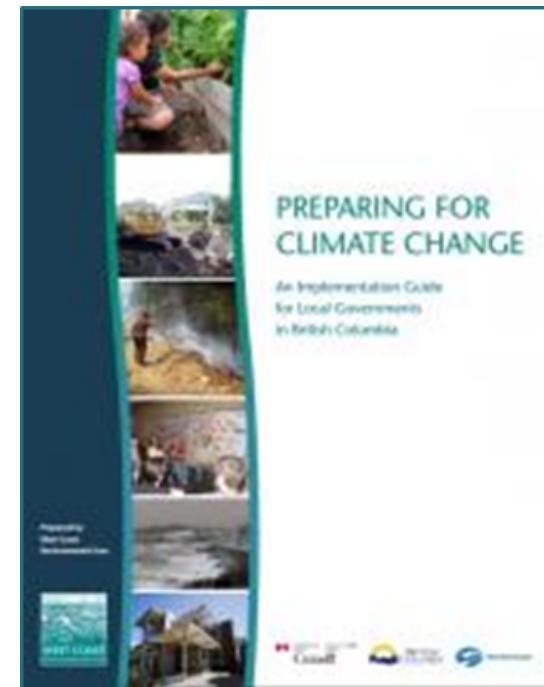
# Zizzo Strategy Inc.

- Climate change is re-defining risk management, legal liabilities and business imperatives
- New multi-disciplinary strategic consultancy firm
- We help
  - understand critical issues
  - create frameworks to enable better decision making, and
  - implement effective and efficient solutions.
- Project focus on adaptation in water, wastewater and stormwater management

- Asset owners, builders and operators
- Industry Associations & Not-for-profits
- Governments
- Utilities
- Financial services & institutional investors

West Coast Environmental Law Association is a not-for-profit environmental organization.

Since 1974, West Coast has successfully worked with BC communities, non-governmental organizations, the private sector and all orders of government, including First Nations governments, to develop proactive legal solutions to protect and sustain the environment.





# Agenda

09:00- 11:00

- Climate is Changing (Potential Impacts)
- Law Guides Adaptive Response
  - Federal Drivers
  - Provincial Drivers
  - Regional/Municipal Drivers
- Where do Professionals Fit In?



# Potential Climate Impacts



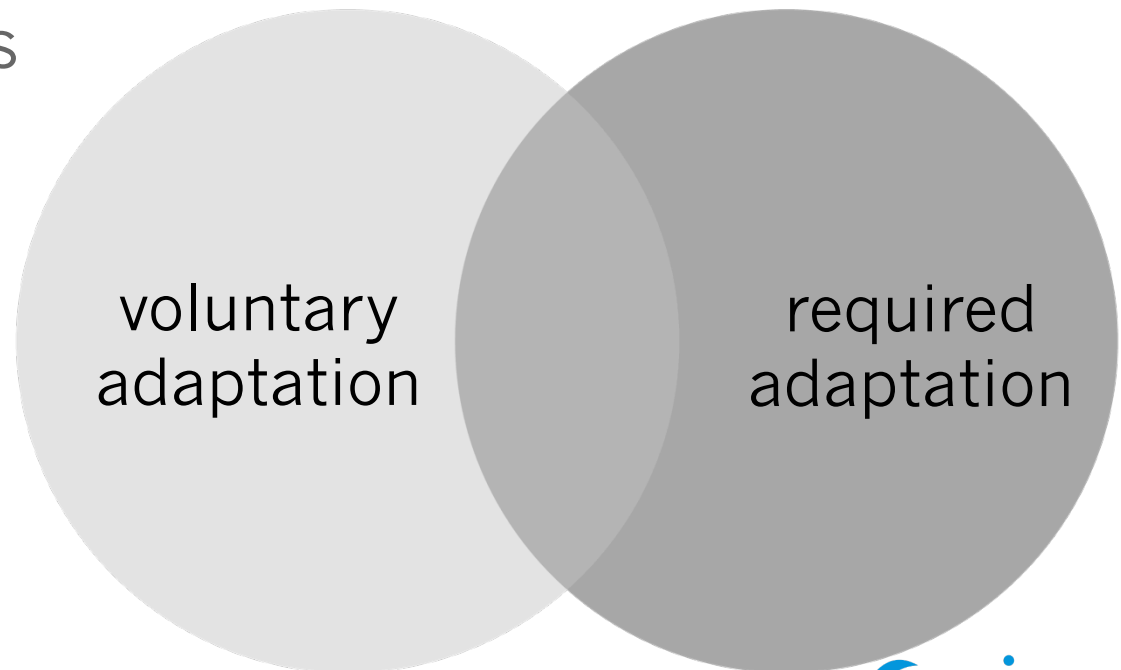
- Increasing precipitation & intensity of storms
- More frequent severe freezing/thawing cycles
- More frequent intense summer heat days
- Water level fluctuations
- Water quality and availability changes



- **Increased costs due to impacts on physical assets & potential legal liability**
- **Significant need to adapt**

# Why Adapt?

- Cost control and prudent planning
- Resilience
- Liability (legislation and common law)
- Insurance costs



# Policy Context



## UNFCCC Paris Agreement

- Universal Agreement to prevent 2°C and try to limit increase to 1.5°C
- Financial support for adaptation



## Pan-Canadian Framework

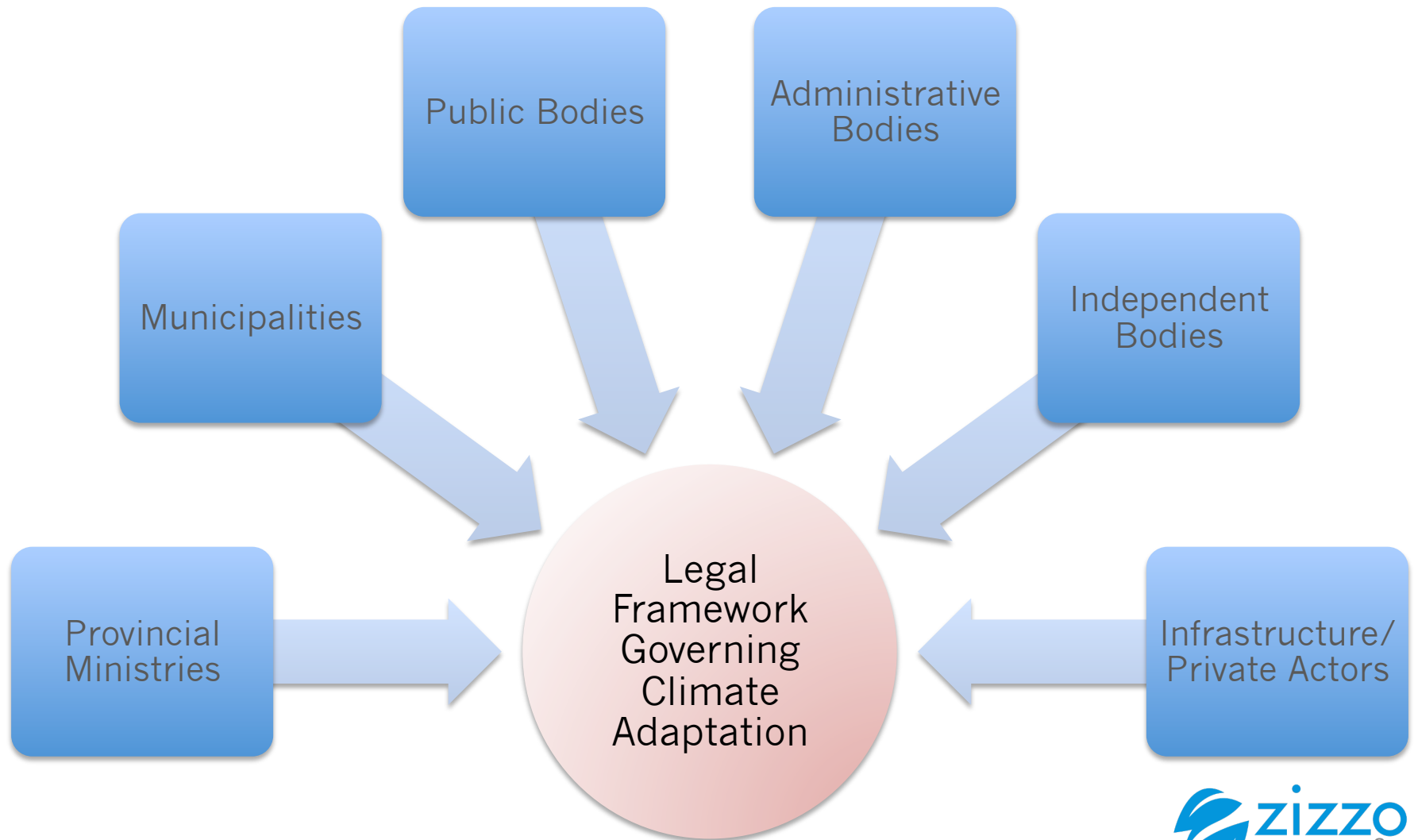
- Adapting to climate change and building resilience
- Supporting innovation



## Provincial Patchwork

- Adaptation and resiliency mandates

# Distributed Climate Change Adaptation Responsibilities

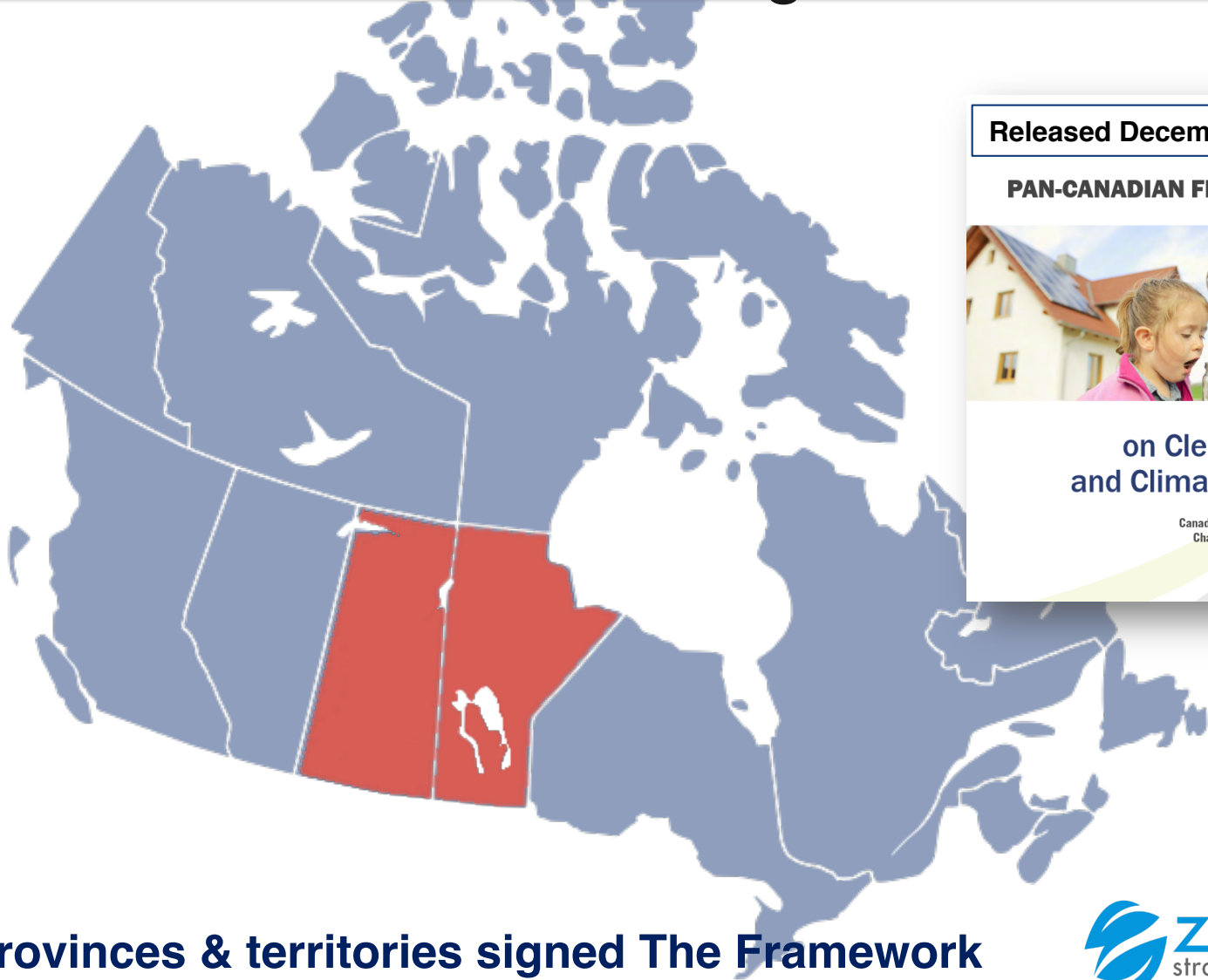


# Legislative Liability Overview

- Greater adaptation requirements in legislation
  - Direct incorporation of climate change considerations
  - Indirect incorporation of climate change considerations
- Additional liability for decision makers
- Standards developing (some by design, some reactively)



# Pan-Canadian Framework on Clean Growth and Climate Change



Released December 9, 2016

## PAN-CANADIAN FRAMEWORK



## on Clean Growth and Climate Change

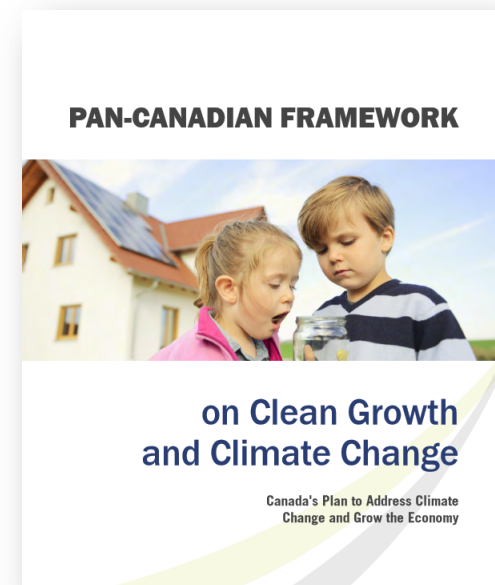
Canada's Plan to Address Climate  
Change and Grow the Economy

**11 of 13 provinces & territories signed The Framework**



# Adaptation and Climate Resilience

- 5 Priority Areas
  - Translating scientific information and Traditional Knowledge into action
  - Building climate resilience through infrastructure
  - Protecting and improving human health and well-being
  - Supporting particularly vulnerable regions
  - Reducing climate-related hazards and disaster risks



# Other Federal Priorities and Initiatives

- Public Safety Canada
  - National Risk Profile
  - Capability analysis for communities
- Infrastructure Canada
  - Developing a “climate lens” for infrastructure investments



# Updating Codes and Standards

- Standards Council of Canada / National Research Council
  - 40 new standards over next 5 years

Program Streams	Total (\$M)
Stream 1 - Standardization guidance for weather data, climate information and climate change projections	\$4.9
Stream 2 - Updating existing infrastructure standards	\$4.8
Stream 3 - Phase 2 of the Northern Infrastructure Standardization Initiative	\$1.9
Totals (over 5 years)	\$11.7

# CSA Group Projects as part of NRC Climate-Resilient Buildings & Core Public Infrastructure Initiative

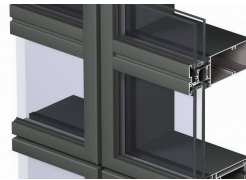
## NRC - Press Release



Climate Change Adaptation for **Basement Flood Proofing and Flood Prevention Measures**



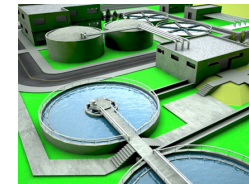
Climate Change Adaptation for **Durability in Buildings (CSA S478)**



Climate Change Adaptation for **Canadian Fenestration Standards (CSA A440 Series)**



Climate Change Adaptation for the **Canadian Highway Bridge Design Code (CSA S6)**



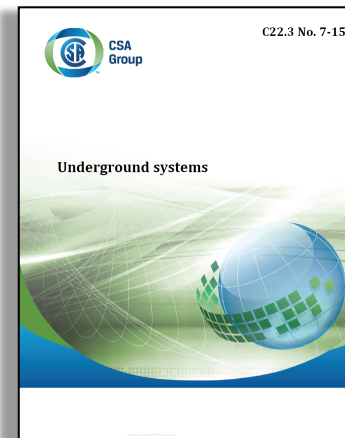
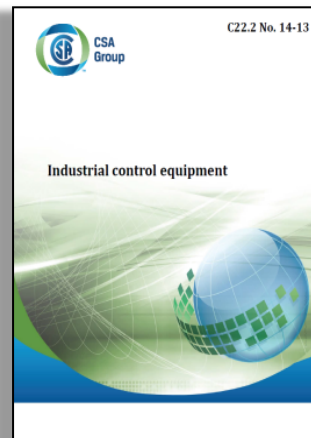
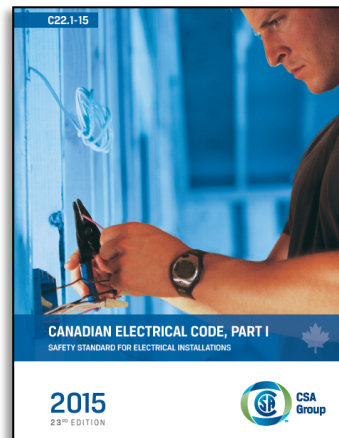
Climate Change Adaptation for **Wastewater Treatment Plants**



Design & Construction of **Bioretention Stormwater Infrastructure**

## NRC-CSA CCA Project Launch

Climate Change Adaptation as it relates to the **Canadian Electrical Code Part I, Part II, and Part III**



# B.C. Climate Leadership Plan

## Climate Leadership Plan



### *Public Sector Leadership*

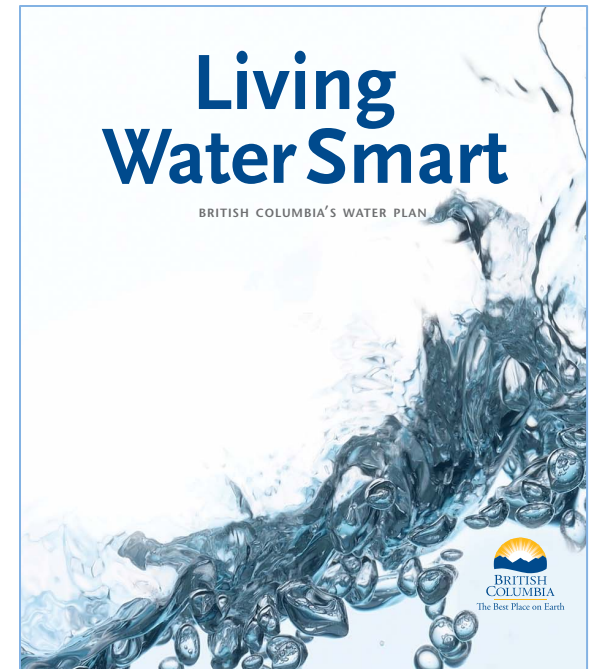
B.C.'s public sector is already leading the way in demonstrating how climate action can help reduce emissions. To continue this leadership, we are taking action with new strategies, including:

- ☑ Promoting use of low carbon and renewable materials in public sector buildings; and
- ☑ Mandating the creation of 10-year emissions reduction and adaptation plans for provincial public sector operations.

This action area is expected to reduce annual emissions by up to 1 million tonnes by 2050.

# Provincial regulation and guidance

- British Columbia *Living Water Smart* strategy
  - Provincial infrastructure funding will require consideration of climate change adaptation
- New *Water Sustainability Act*
  - Adds effects of climate change as a possible factor in review of licenses





# BC climate adaptation: limited guidance

Amendment to Flood Hazard Land Use Mgmt Guidelines (Jan 2018)

- Guidance for local governments re: sea level rise
- Must “consider”, but highly relevant for eligibility for disaster financial assistance

Ministry of Transportation and Infrastructure Technical Circular (Aug 2016)

- Directive to consider climate change impacts in infrastructure design, rehabilitation and maintenance projects (risk over design life).

Village of Kaslo (May 2011)

- Bids, tenders and contracts for planning and development should take into account climate change impacts

# Regulatory uncertainty re: climate adaptation

BC Auditor-General's report (February 2018)

- BC climate is warming faster than global average
- 15 recommendations re: adaptation
- Flood risks not being adequately managed (authority fragmented across provincial and local governments)
- Limited incentives for local governments to take action

Federal legislation

- Proposed Impact Assessment Act – no direct reference to climate change adaptation
- Updates to Fisheries Act – no direct reference to climate change adaptation

# Barriers to Implementation

- Data availability
- Increased extreme weather events (and knowledge that this will intensify)
- Aging infrastructure
- Development policy (unaligned incentives)
- Lack of shared information and standards
- Cost concerns (lack of dedicated funding)
- Regulatory uncertainty

# Role of Professionals in Climate Adaptation

- Support enhancing awareness and enable proliferation of adaptation and mitigation practices
- Draw attention to climate risks and help formulate responses
- Draw on technical expertise to help develop sound implementation strategies
- Promote up-to-date information on best practices and regional climate data sets
- Help government set research, legislative, expenditure priorities
- Advance and support relevant professional practice guidance
- **Public health, safety and welfare**

# Questions?

## Thank You



Joanna Kyriazis | Policy Director

[joanna@zizzostrategy.com](mailto:joanna@zizzostrategy.com)



1.888.664.7723



@ZizzoStrategy



1200 Bay Street, Suite 604  
Toronto, ON M5R 2A5