

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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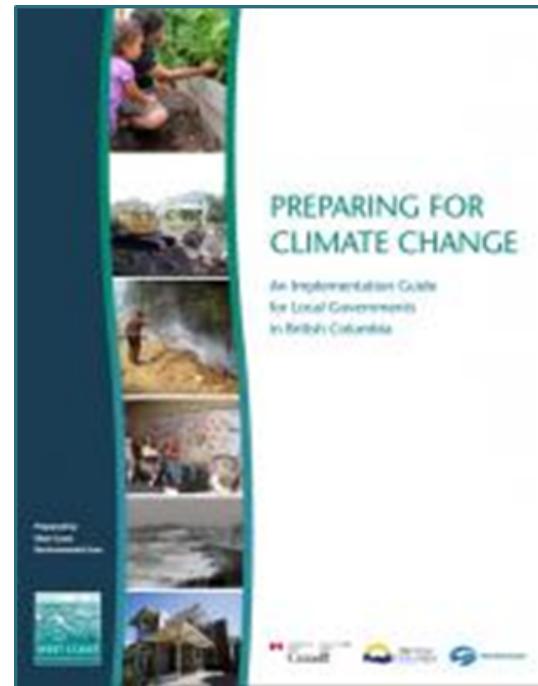
Zizzo Strategy Inc.

- 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



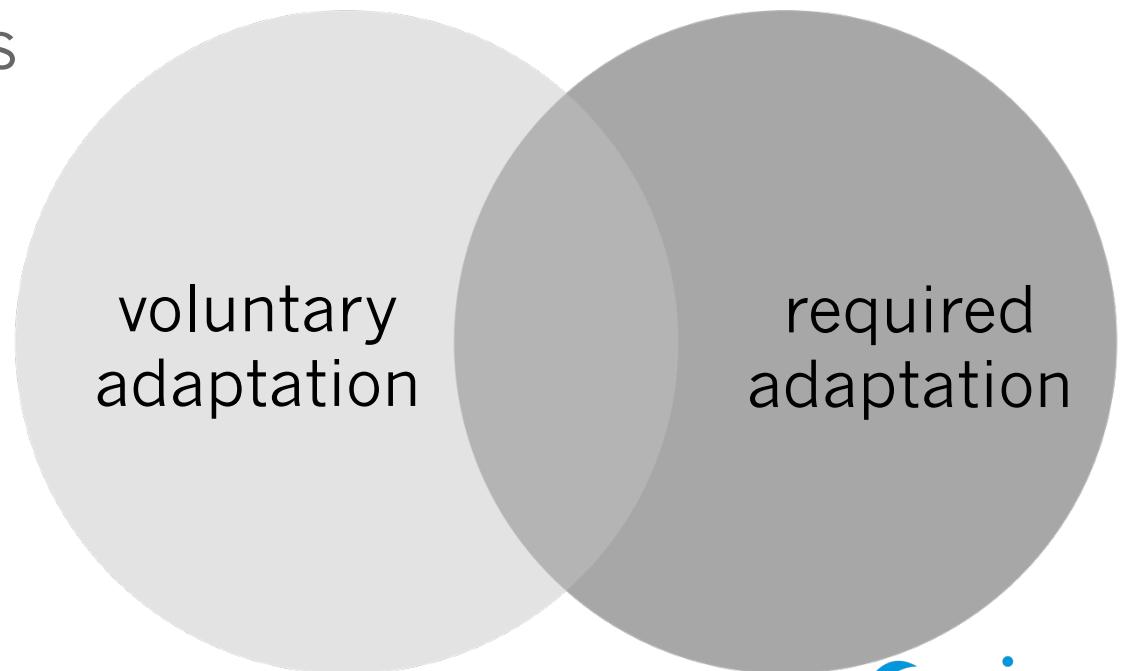
- Increasing precipitation & intensity of storms
- More frequent severe freezing/thawing cycles
- More frequent intense summer heat days
- Water level fluctuations
- Water quality and availability changes

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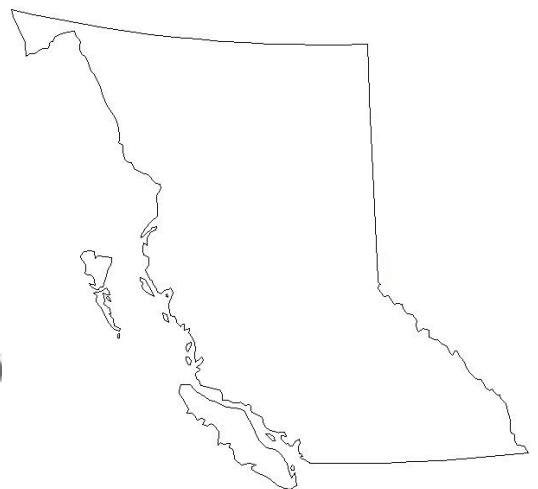
- **Increased costs due to impacts on physical assets & potential legal liability**
- **Significant need to adapt**

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

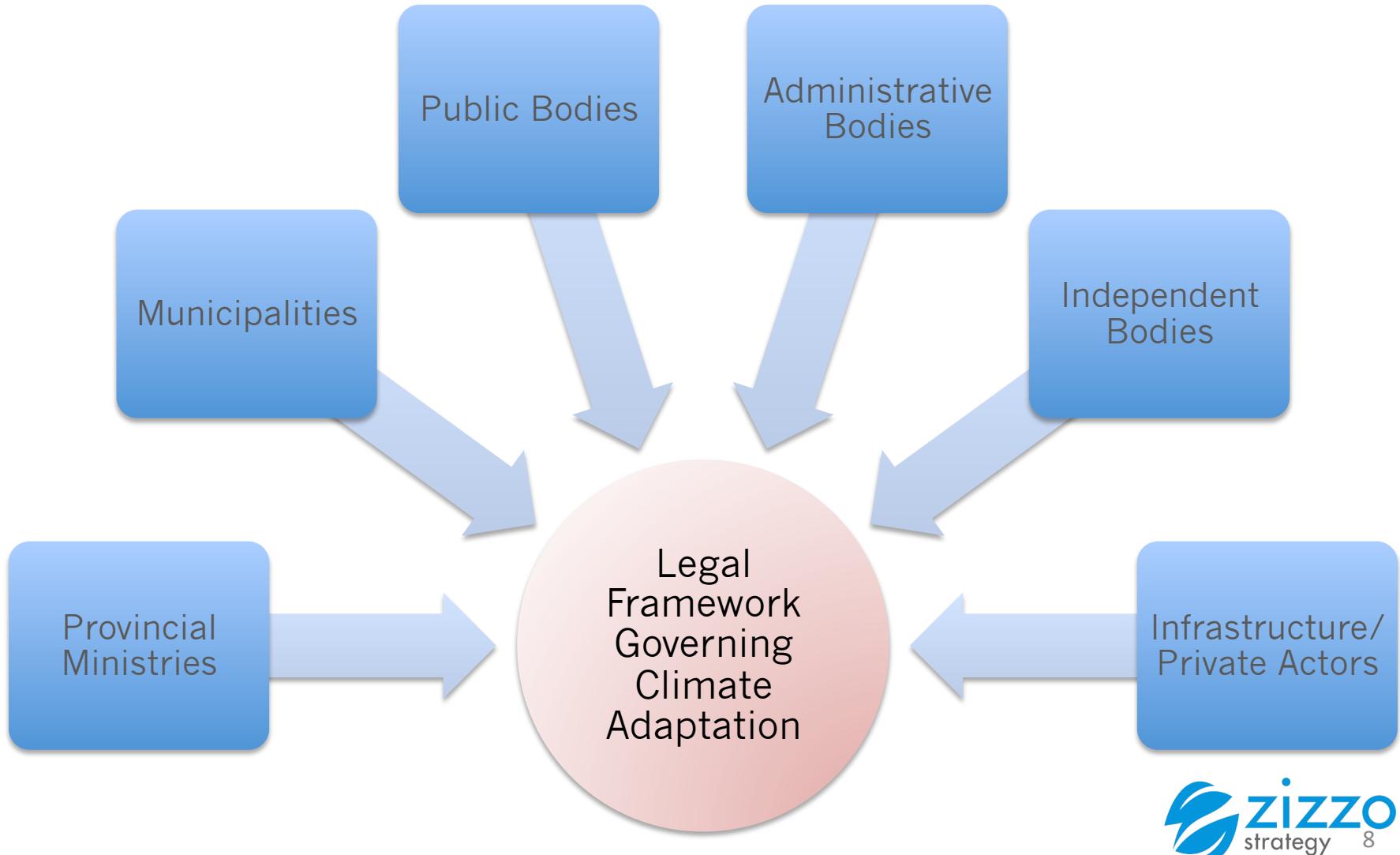
Pan-Canadian Framework

- Adapting to climate change and building resilience
- Supporting innovation

Provincial Patchwork

- Adaptation and resiliency mandates

Distributed Climate Change Adaptation Responsibilities

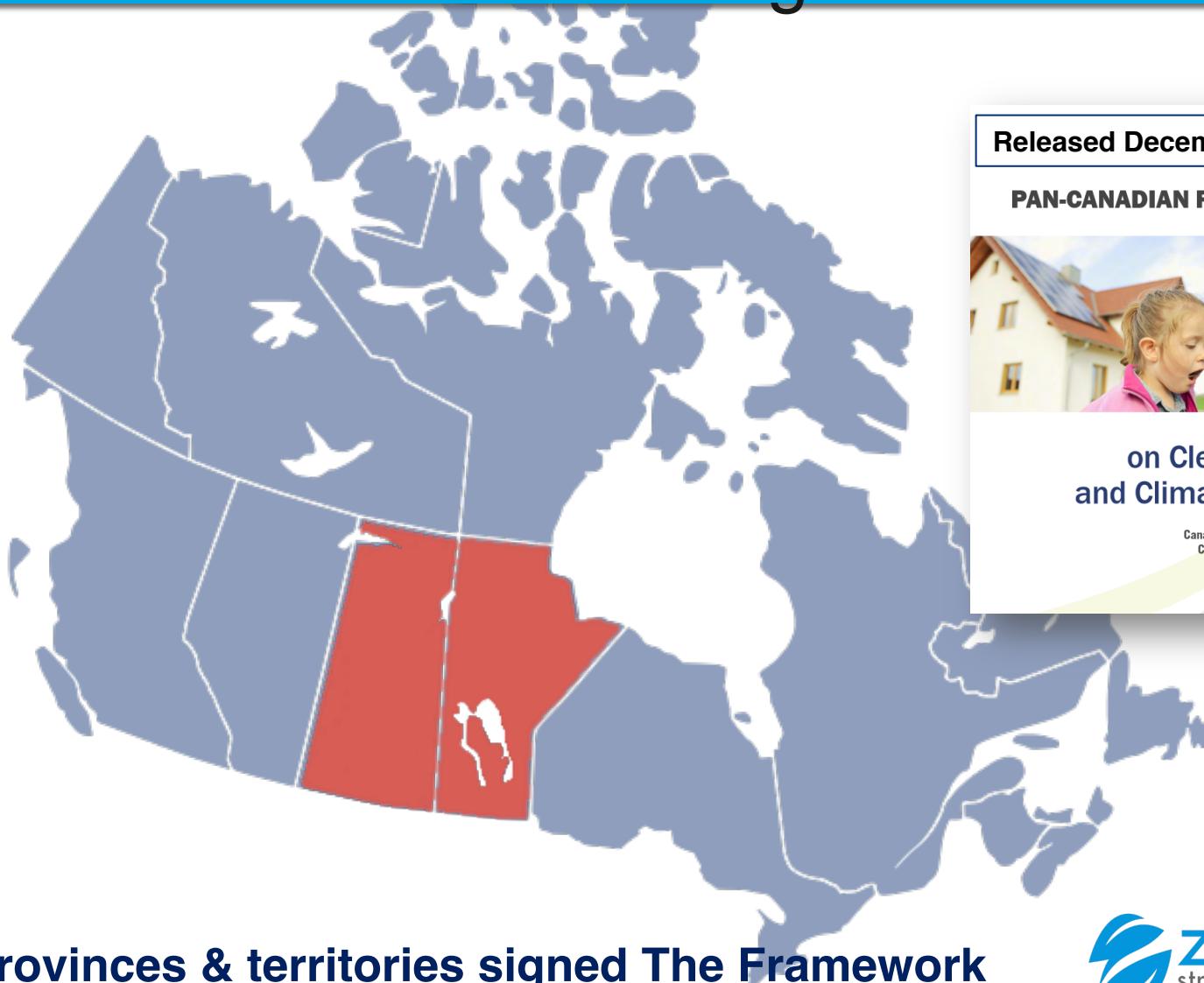


Legislative Liability Overview

- 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)



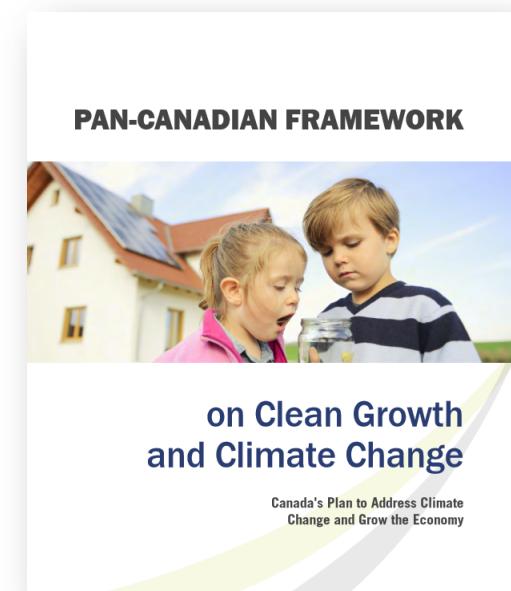
Pan-Canadian Framework on Clean Growth and Climate Change



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

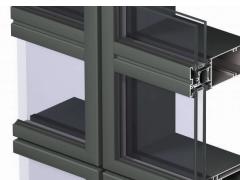
CSA Group Projects as part of NRC Climate-Resilient Buildings & Core Public Infrastructure Initiative



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)**



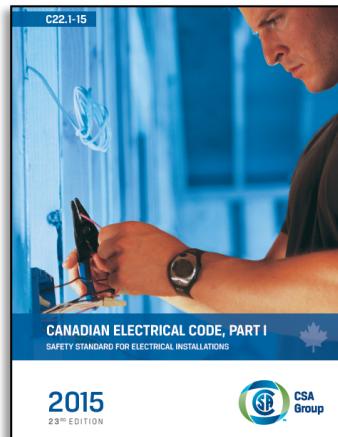
Climate Change Adaptation for **Wastewater Treatment Plants**



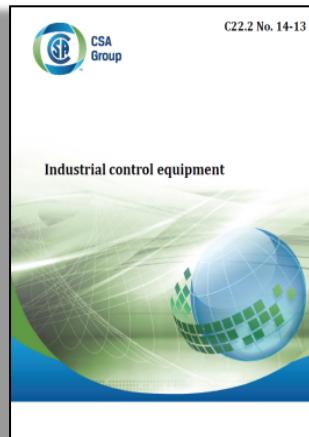
Design & Construction of **Bioretention Stormwater Infrastructure**

[NRC - Press Release](#)

[NRC-CSA CCA Project Launch](#)

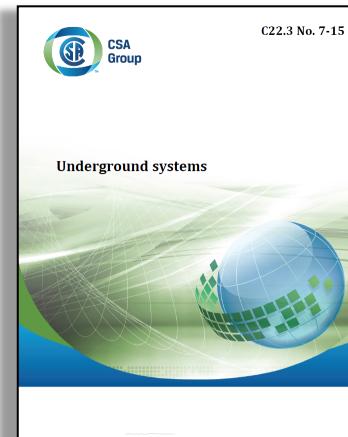


Climate Change Adaptation as it relates to the **Canadian Electrical Code Part I, Part II, and Part III**



C22.2 No. 14-13

Industrial control equipment



C22.3 No. 7-15

Underground systems

B.C. Climate Leadership Plan

Climate Leadership Plan



Public Sector Leadership

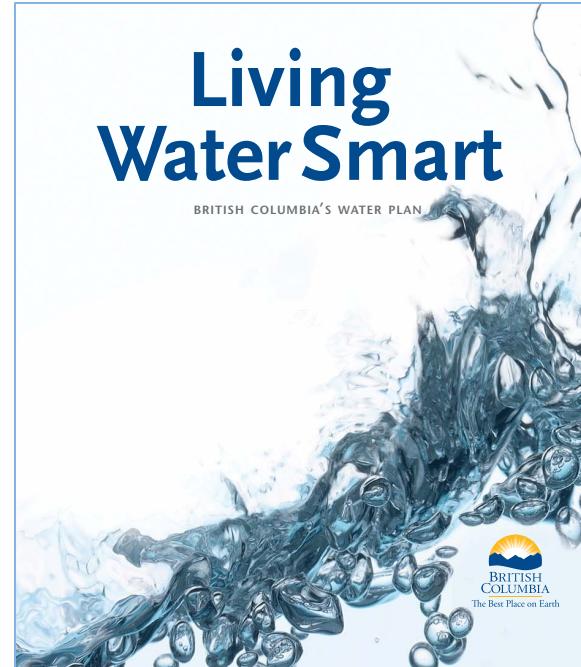
B.C.'s public sector is already leading the way in demonstrating how climate action can help reduce emissions. To continue this leadership, we are taking action with new strategies, including:

- 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



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