

UPDATE ON B.C.'S MODERNIZED EMERGENCY MANAGEMENT LEGISLATION

Metro Vancouver
Flood Resiliency Committee

STATUS UPDATE

- Legislative process: Bill 31, *Emergency and Disaster Management Act*
 - Introduced October 3, 2023
 - Received third reading November 1, 2023
 - Received royal assent November 8, 2023
- Phased implementation
- Engagement underway for key regulations on:
 - Local authority matters
 - Post-emergency financial assistance
- Technical papers available on govTogetherBC



KEY POLICY SHIFTS FOR LOCAL AUTHORITIES

All four phases of
emergency
management

Climate change
considerations

Multijurisdictional
emergency
management
organizations

Improved tools for
response and
recovery

Risk assessment
and emergency
management
planning

Consultation and
cooperation

CONSULTATION AND COOPERATION REQUIREMENTS



Consultation and cooperation required:	With which Indigenous governing bodies?
When preparing, reviewing, or revising a risk assessment or emergency management plan	<ul style="list-style-type: none"> • IGBs that act on behalf of First Nations Peoples with traditional territory that comes within the jurisdictional boundaries of a local authority • Modern Treaty Nations whose treaty settlement lands are adjacent to the jurisdictional boundaries of a local authority
In advance of making an emergency instrument (e.g., an order) related to specific response and recovery powers (in general, orders related to land or property)	<ul style="list-style-type: none"> • IGBs identified in a local authority's emergency management plan or in an agreement made under EDMA • Modern Treaty Nations whose treaty settlement lands, or people within treaty settlement lands, would be affected
In advance of issuing an evacuation warning or permitting people to return	<ul style="list-style-type: none"> • IGBs identified in a local authority's emergency management plan or in an agreement made under EDMA • Modern Treaty Nations whose treaty settlement lands, or people within treaty settlement lands, would be affected

PROPOSED LOCAL AUTHORITY REGULATIONS

Topic	Regulation could cover:
Risk assessment (see EDMA s. 51)	<ul style="list-style-type: none">• Clarification of the scope of risk assessments for regional districts• How risk assessments must be prepared and what they must contain• Review and revision cycles
Planning (see EDMA s. 52 and 53)	<ul style="list-style-type: none">• How emergency management plans / business continuity plans must be prepared and what they must contain• How a local authority must consult and cooperate with Indigenous governing bodies• Review and revision cycles
Multijurisdictional emergency management organizations (see EDMA s. 21)	<ul style="list-style-type: none">• Establishment, governance, and responsibilities of multijurisdictional emergency management organizations• Records that must be provided to the Province

PROPOSED FINANCIAL ASSISTANCE REGULATIONS



Policy area	Questions
Clarifying event eligibility	<ul style="list-style-type: none">• What considerations/characteristics should be used in determining whether an event is eligible for financial assistance?
Considering the availability of insurance	<ul style="list-style-type: none">• For communities, have there been barriers to getting insurance coverage?• For individuals, what are some of the barriers to getting insurance coverage?
Modernizing program coverage	<ul style="list-style-type: none">• How could post-emergency financial assistance incorporate cultural values?• How could financial assistance processes promote cultural safety?
Building forward for resilience	<ul style="list-style-type: none">• Post-emergency, what factors are most important to ensuring that people and communities can rebuild in a manner that reduces future disaster risk?

WHAT'S NEXT

- Engagement and regulation development
- Developing tools and resources to assist local authorities with implementation



 gov.bc.ca/EmergencyManagementAct

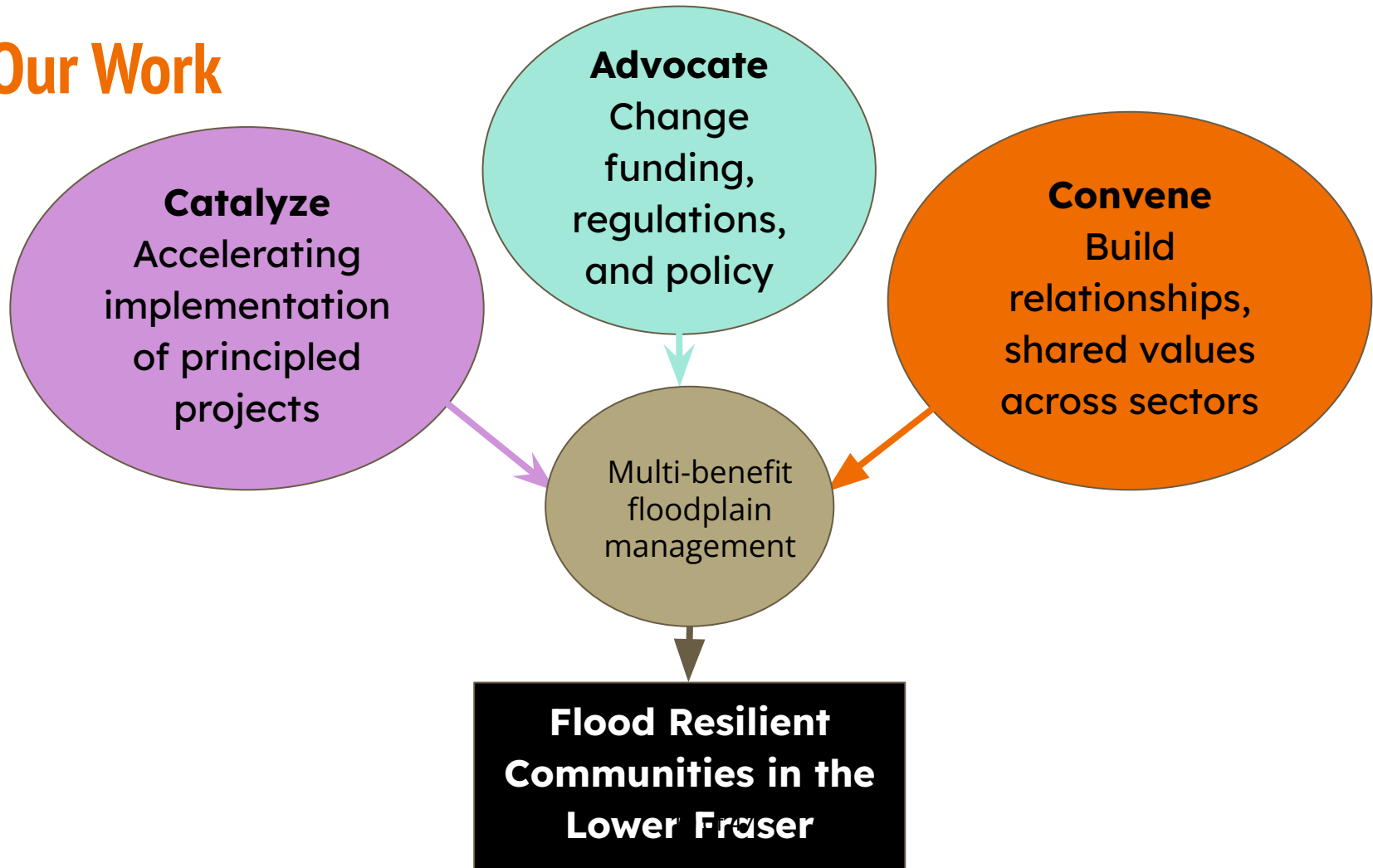
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Lower Fraser Floodplains Coalition

EMERGENCY PLANNING SECRETARIAT



Our Work



5 Principles for Working Together in the Lower Fraser Floodplain

- Reducing risk and adapting to climate change;
- Advancing reconciliation;
- Ensuring that salmon are thriving;
- Supporting sustainable economies and resilient communities; and
- Making sure everyone is part of the solution.



Lower Fraser Floodplains Forum 2023 Dialogue on Regional Action

HOSTED AT: THE ʔ:TSÉLÍYA - S.A.Y. HEALTH & COMMUNITY CENTRE • JUNE 9, 2023



Strong Provincial Connection

- Our work feeds into the BC Flood Strategy
 - regionally and sub-regionally
- Creating a 3 year plan for WLRS



Floodplains Forum - June 9, 2023

1. 20 local governments, 14 First Nations, 2 regional governments, 5 agricultural associations, 10 senior staff from provincial and federal agencies including Minister Ma
2. Goal: build on the collective momentum and identify shared priorities for action that can attract funding and move the region to resilience in a principled, strategic and effective way.





Minister of EMCR Bowinn Ma, Sto:lo Tribal Chief and EPS Chair Tyron McNeil and
Chilliwack Councillor and FVRD Chair Jason Lum

June 9, 2023

“A resilient BC is when we are in a place where we are not afraid of what Mother Nature is throwing at us because we are working with her and not against her.

We build our communities in a way where we understand nature instead of fighting it. We build to accept and work with nature.”

Minister Ma, Emergency Management and Climate Readiness, reflecting on
the June 2023 Forum

Priority Area Discussions (based on 5 Principles)

1. Understanding risk and risk management
2. Critical infrastructure and local essential services
3. River resilience, recovery and restoration
4. Food security
5. Regional planning, policy and decision-making



Recommendations and Next Steps

BASKET 1: Build the knowledge foundation needed for regional planning and investment in flood risk management in the Lower Fraser (pg 27)

- Three-year objective: Develop a regional flood risk assessment and a suite of mitigation options.

Recommendations and Next Steps

BASKET 2: Build a framework for regional planning and investment in flood risk reduction, guided by the 5 principles (page 28)

- Three-year objective: Set up an interim Floodplain Advisory Committee and develop relationships and process to prioritize investments in regional flood risk reduction

Recommendations and Next Steps

BASKET 3: Unlock a steady flow of flood and ecosystem resilience projects in the sub-regions of the Lower Fraser (page 29)

- Three-year objective: Build relationships and processes at sub-regional scales that support priorities and project development around flood resilience, reconciliation, river recovery, salmon habitat restoration, and community well-being for everyone.
-

Abbotsford

Hope

Chilliwack

Harrison Hot Springs

Mission

Kent

MID-RIVER

UP-RIVER

Fraser Valley
Regional District

Fraser Valley
Regional District

Anmore
Belcarra

Delta

Burnaby

City of North Vancouver

District of North Vancouver

Port Moody

Richmond

Surrey

Vancouver

West Vancouver

White Rock

Metro Vancouver Regional District

COASTAL

**RIVER-
TIDAL**

Coquitlam

Township of Langley

City of Langley

New Westminster

Maple Ridge

Pitt Meadows

Port Coquitlam

Surrey

Metro Vancouver Regional District

Next Steps for this Committee

1. How do you see your role at the regional/sub-regional level?
2. How would you like to be further engaged?
3. Support our calls for a regional approach
4. Are there any MV projects that are at a shovel-ready phase that meet our 5 Principles?
 - a. Any at the LG level?

Next 3 slides are examples of projects

1. Completed: Lower Agassiz FF Flood-gate, Kent
2. Construction Aug 2024: FF pump and gate Tilbury Slough, Delta
3. Funding needed: Maple Creek, Port Coquitlam



Fish-friendly Gate at Lower Agassiz Slough

Blog post:

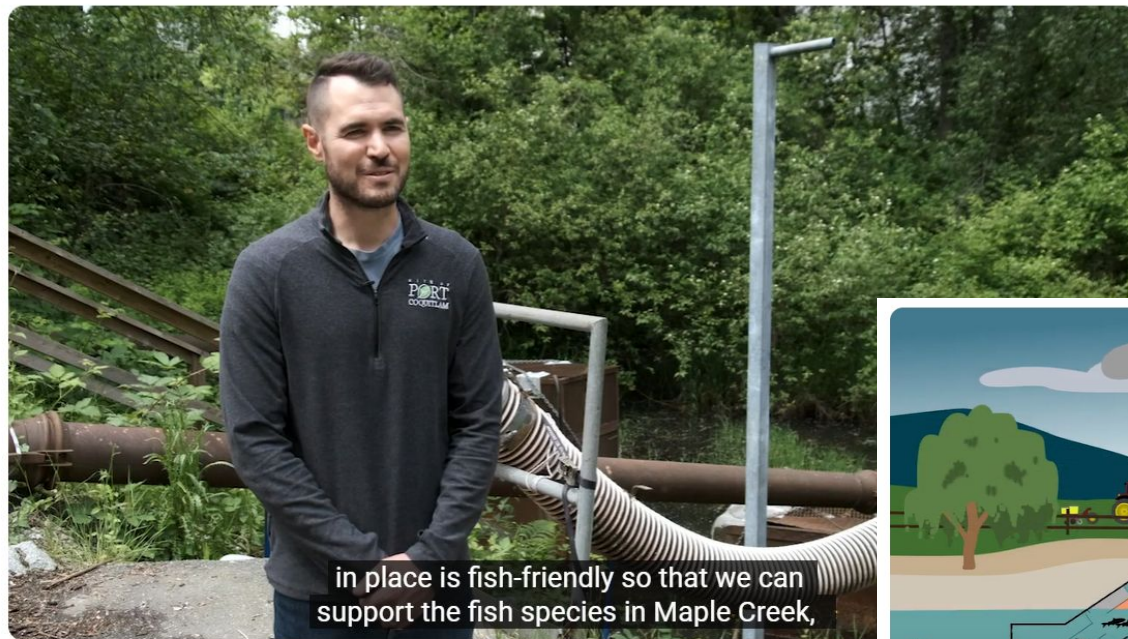
<https://watershedwatch.ca/salmon-lower-agassiz-slough/>

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Resilient Waters: Tilbury Slough Pump Station and Floodgate



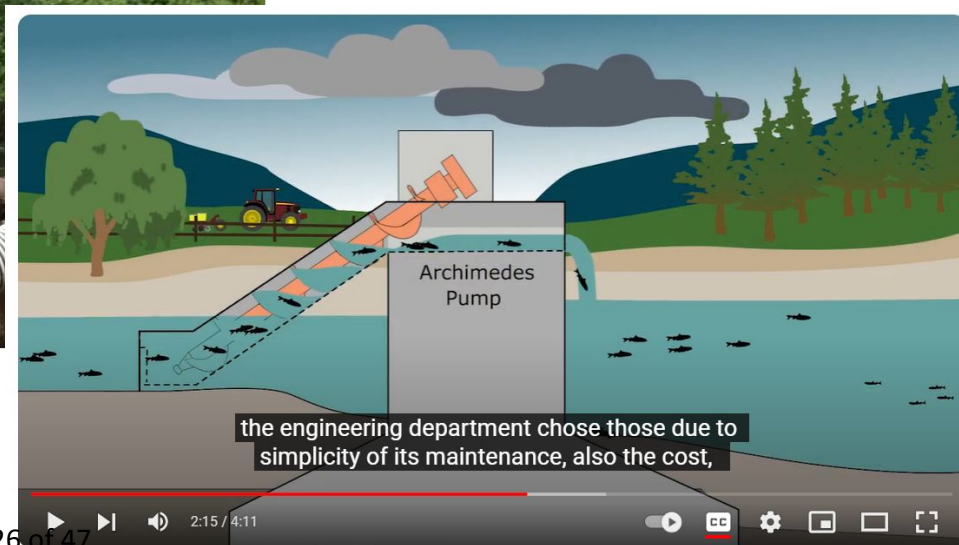
Maple Creek Pump Station and Gate, Port Coquitlam Still Needs Help



Let's Make Maple Creek Fish-Friendly, Together!

Video link on Watershed Watch Youtube Channel:

<https://www.youtube.com/watch?v=BvYhIJ-venk>



Let's Make Maple Creek Fish-Friendly, Together!



**Metro Vancouver
Flood Resiliency Committee**

Pathways to Action for Flood Risk Reduction and Resilience

November 10, 2023

27 of 47



Fraser Basin Council

Context: Challenges

- Lower Mainland: the most flood-vulnerable region in Canada
- Without major investments, impacts in the \$10's of billions will be felt across the country
- Multiple processes underway operating at different scales
- Strong agreement about need for major regional investments; contrasting perspectives on how to get there
- Capacity & vulnerability issues facing many First Nations
- DRIPA implementation at regional scale unclear

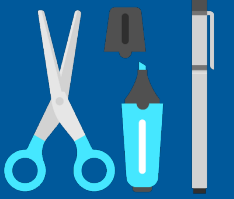
Context: Opportunities

- Emergence of strong regional government leadership
- Memories of November 2021 flooding still fresh
- Embracing of UNDRIP in policy, legislation and practices opens doors to productive First Nations relationships

Context: Opportunities (Cont'd)

- Alignment and potential synergies possible between Pathways to Action and other flood-focused initiatives relevant in the Lower Mainland
- Well developed tools and information to inform actions now
- Pathways to Action reflects agreement among federal, provincial, First Nations and regional/local government voices: **now is the time to capitalize on this agreement**

What is *Pathways to Action*?



- *Pathways to Action* is one of the final deliverables of the Lower Mainland Flood Management Strategy initiative
- Developed through a multi-government working group overseen by a Leadership Committee with senior representatives of 4 orders of government
- Purpose: to inform and catalyze actions by decision makers to reduce flood risk and increase resilience in the Lower Mainland



Pathways to Action: Overview

Improve
Understanding of
Flood Risk

Enhance
Coordination and
Collaboration

**Assess and
Address Regional
Priorities**

Advance Flood Risk
Reduction, Resilience
and Climate
Adaptation Actions

**Strengthen First
Nations
Participation**

Strengthen a
Strategy
Development
Process

Secure Funding

**Strengthen
Regional-Scale
Decision-Making**

Refine Strategy
Purpose and
Goals

Clarify
Geographic
Scope and Flood
Hazards

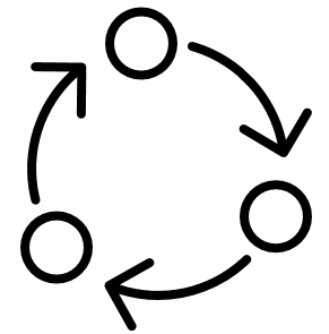
Strengthen First Nations Participation

- Invest in First Nations participation and capacity-building
- Identify and incorporate priority UNDRIP articles in flood planning and resilience (18, 19, 29, 32)
 - Decisions that impact title and rights
 - Conservation of lands and resources
 - Free prior and informed consent



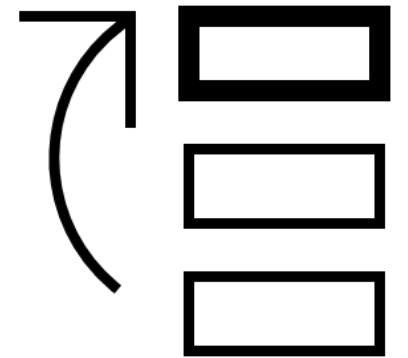
Strengthen Regional-Scale Decision-Making

- Establish a leadership table with decision makers from all orders of government to oversee next steps on urgent actions and investments
- A suggestion: frame as a Leaders Summit, attended by elected leaders of all four orders of government



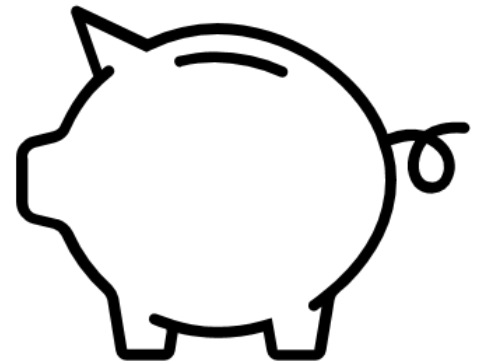
Assess and Address Regional Priorities

- Identify and prioritize critical infrastructure and essential services that are at risk from coastal or Fraser River flooding in the Lower Mainland and make these early priorities for flood risk reduction, resilience and climate adaptation



Secure Funding

- Secure funding commitments and invest in urgent actions to address critical infrastructure and essential service priorities with appropriate risk reduction and resilience measures





Lower Mainland Flood Management Strategy

**What have we learned about
flood hazards and risks?**

Informed Decision Making

- What is the nature and extent of the problem?
- Improve tools to inform decision making on:
 - Projected flood scenarios including climate change impacts
 - Quantifying flood risks and projected consequences
 - Designing and deciding on best practices and resilience solutions



What does the Technical Synthesis cover?

- Flood hazards
- Flood risk
- Flood risk reduction
- Gaps and limitations
- Informing action



**FRASER RIVER
FLOOD**



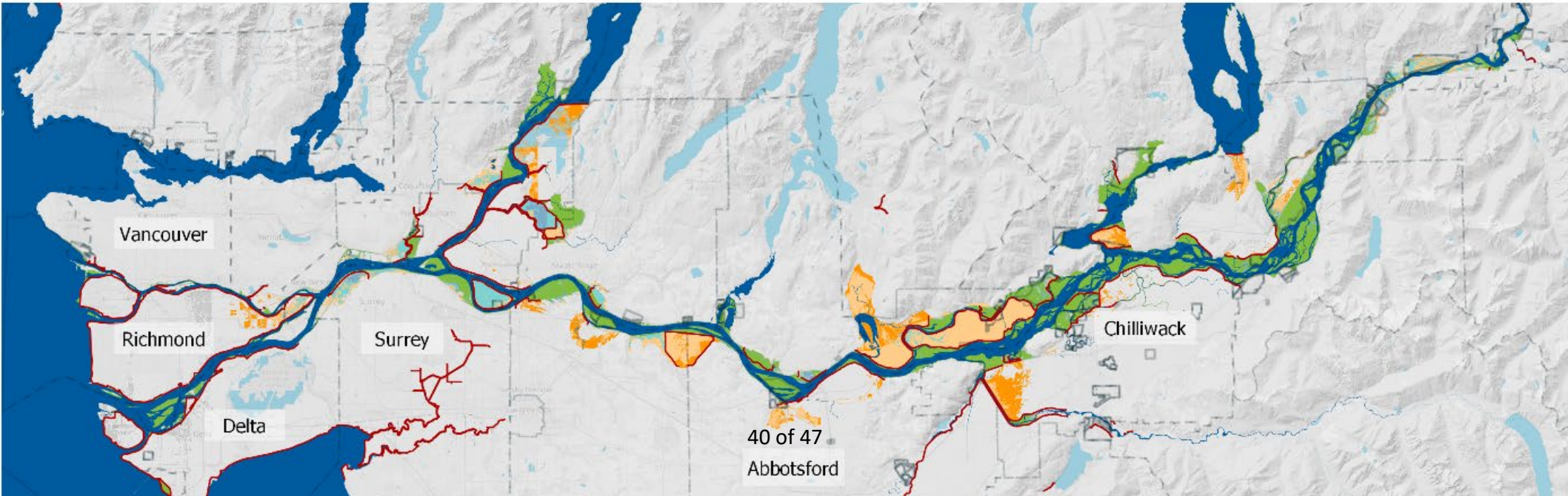
**COASTAL STORM
SURGE FLOOD**

Flood Hazards: Fraser River Floodplain Model



Table 3. Characteristics of Modelled Fraser River Flood Hazard Scenarios (Present Day)

Scenario	Peak water levels at Mission (m)	Area flooded (km ²)
50-year return period (2% AEP)	7.5	159
100-year return period (1% AEP)	7.9	175
200-year return period (0.5% AEP)	8.3	203
500-year return period (0.2% AEP)	8.8	282 ¹
1894 Event	8.9	325

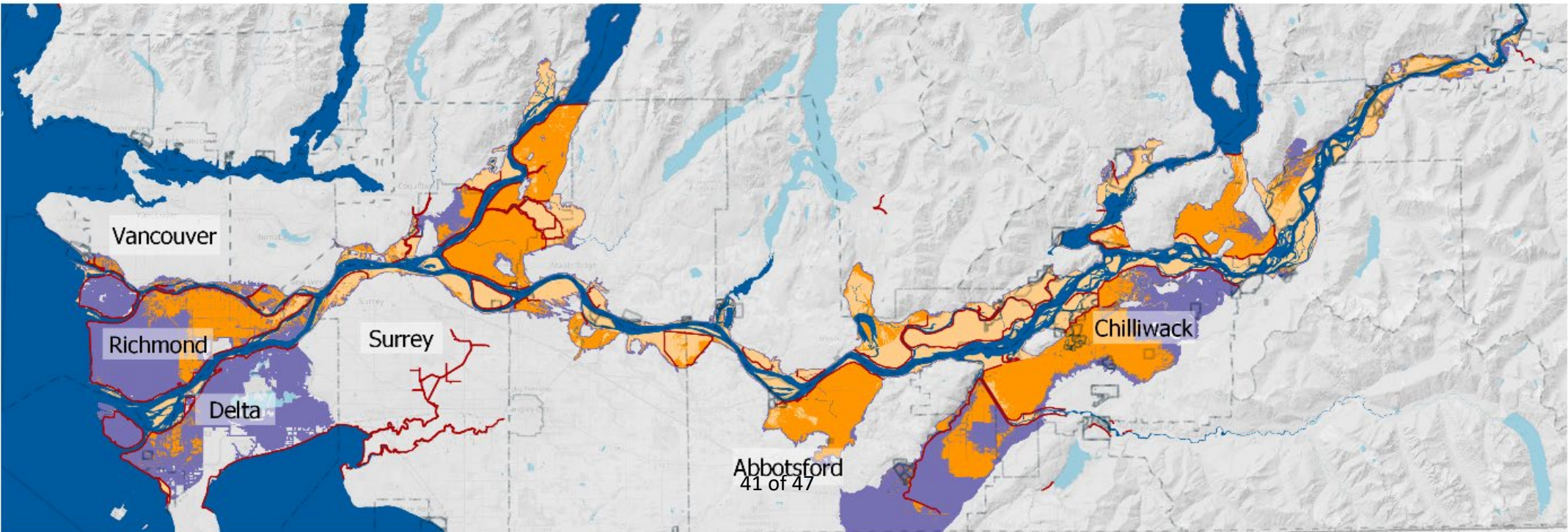


Flood Hazards: Fraser River Floodplain Model





Table 4. Differences in Modelled Flood Hazards Due to Climate Change
for a 500-year Fraser River Flood



500-year flood	Water level at Mission	Area flooded	Diked areas
Present day	8.8 m	282 km ²	Approx. 20 dikes overtopped
2050	9.5 m	609 km ²	All dikes except 4 overtopped
2100	10.7 m	925 km ²	All river dikes are overtopped





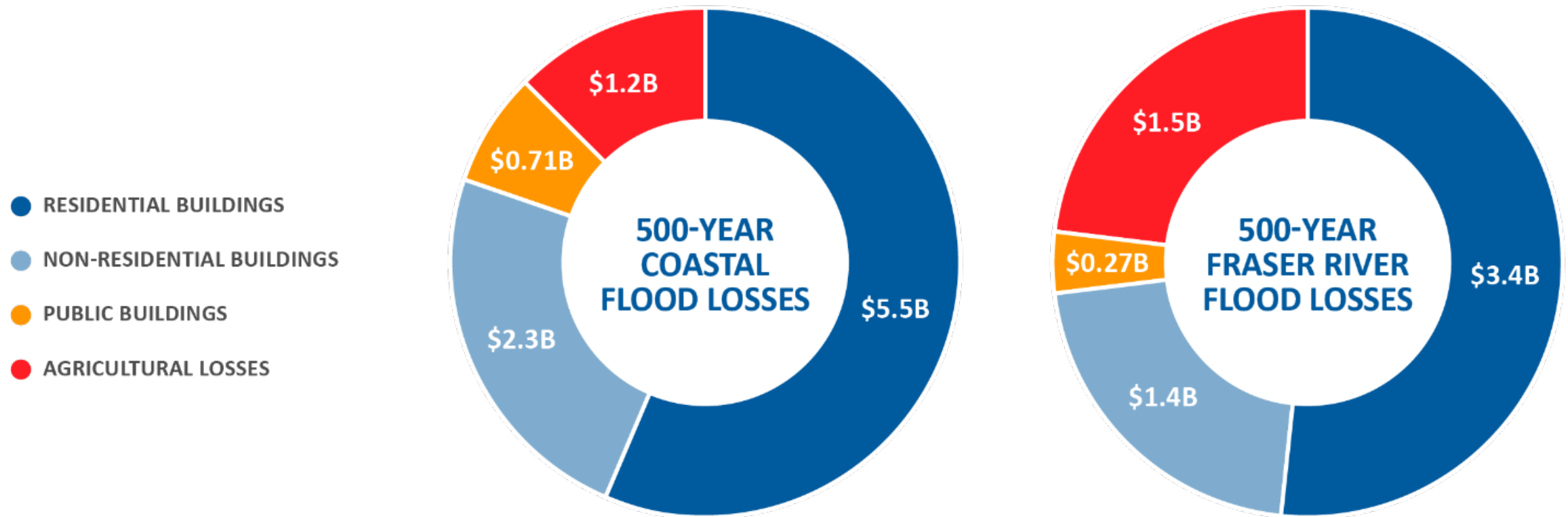
Flood Exposure: Communities



Communities Exposed	 Only Coastal	 Only Fraser River	Both Fraser River and Coastal
First Nations	3	20	5
Municipalities/Electoral Areas	8	11	14

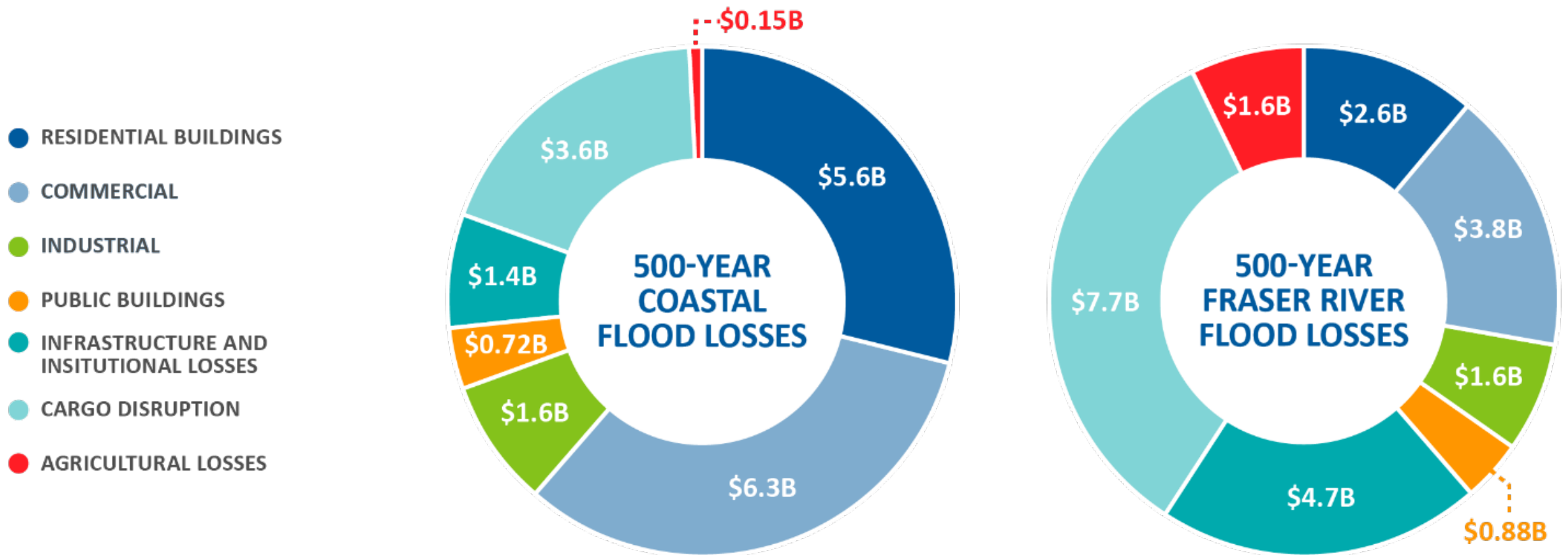
Flood Risk:

Flood Risk Assessment Comparison of Dollar Losses from a 500-Year Coastal or Fraser River Flood



Flood Risk:

Flood Vulnerability Assessment Comparison of Dollar Losses from a 500-Year Coastal or Fraser River Flood



Flood Risk:



Table 6. Dollar Losses from 500-Year Coastal and Fraser River Floods

Dollar Losses (Billions)	500-year coastal flood		500-year Fraser River flood	
	Flood Vulnerability Assessment	Flood Risk Assessment ¹⁵	Flood Vulnerability Assessment	Flood Risk Assessment
Combined residential, commercial, and industrial building-related losses	\$14.2B	\$7.8B	\$9.0B	\$4.8B
Residential buildings	\$5.6B	\$5.5B	\$2.6B	\$3.4B
Non-residential (commercial and industrial buildings, religious)	\$6.3B (commercial) \$1.6B (industrial)	\$2.3B	\$3.8B (commercial) \$1.6B (industrial)	\$1.4B
Public buildings and infrastructure	\$720M ¹⁶	\$712M ¹⁷	\$880M	\$269M
Infrastructure and institutional losses	\$1.4B ¹⁸	N/A ¹⁹	\$4.7B	N/A
Cargo disruption from disrupted rail lines ²⁰	\$3.6B	N/A	\$7.7B	N/A
Agricultural losses (production, buildings, equipment)	\$151M 45 of 47	\$1.2B	\$1.6B	\$1.5B

How Local Governments Can Use Technical Synthesis & Tools

- Inform local flood planning and action... Now!
- Identify common priorities for action and investment.. Now!
- Mobilize action...Now!



Questions and Suggestions?

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Fraser Basin Council