

Lower Mainland Flood Management Strategy

Draft 1

Presentation for the Metro Vancouver Finance and Intergovernment Committee
February 10, 2021



*Process facilitated
and coordinated by*

Finance and Intergovernment Committee

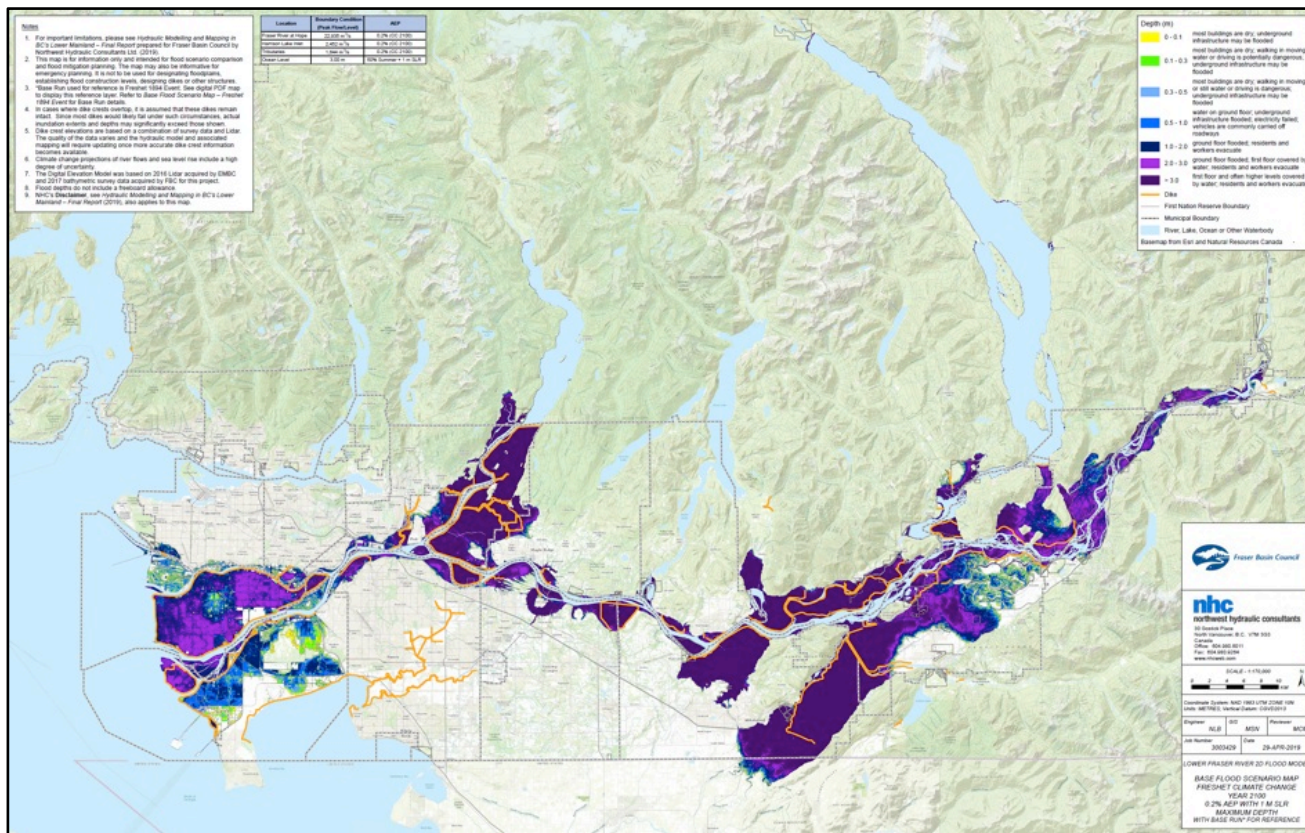


Fraser Basin Council

Lower Mainland Flood Management Strategy



Fraser River Freshet and Coastal Storm Surge Floods



Modelled 500-yr Fraser River freshet - climate change projection to year 2100 with 1m SLR and higher Fraser peak flow

Organizations Involved

- 60+ partner / participating organizations: federal, provincial, First Nations, and local governments and non-government entities
 - MV, FVRD, and member municipalities
- FBC facilitates and coordinates the initiative
- Joint Program Committee – staff/practitioners
- Leadership Committee – decision makers

Phases of the Strategy Development

1 Phase 1 (2014 – 2016) Understanding Flood Risk

Phase 1 reported on:

- Coastal and Fraser River flood scenarios
- Projected economic losses and impacts
- State of flood mitigation works, policies and practices.

Details at **floodwise.ca**.



Phase 1 of the Strategy (2014-2016)

Building a better understanding of:

- **Flood hazards** – more and bigger Fraser and coastal floods with climate change
- **Flood vulnerabilities** – 300,000 people displaced, \$20-30 Billion in losses
- **Flood protection infrastructure, policies and practices** – most dikes don't meet provincial standards for height and seismic resilience

Phases of the Strategy Development

2 Phase 2 (2016 – 2021) Building the Strategy

Phase 2 work:

- Flood modelling and mapping
- Risk assessment
- Flood info website (FloodWise.ca)
- Draft strategy development and finalization

STRATEGY REVIEW

Draft 1: Feb – Mar 2021

Draft 2: May – July 2021

Entities with flood
management responsibilities

Draft 3: Sept – Oct 2021

Public and stakeholders

Final: Nov 2021

Phases of the Strategy Development

3 Phase 3 (2022 Forward) Approval and Implementation

Phase 3 work:

- Final steps for approval of strategy by entities with flood management responsibilities
- Prioritization of recommendations
- Implementation



Key Challenges and Opportunities

Climate
change

Low public
awareness

Inter-jurisdictional
hazards and risks

Past and
current
inequities

Reliance on
structural
approaches

Competition
for funding

Diversity across region

Recognition of holistic,
integrated approaches

Improved information & tools

Complementary initiatives

Desire for better coordination

Goals of the Strategy

Goal 1



Improve understanding
of Lower Mainland flood
risk and increase
awareness

Goal 2



Support investment and
actions to reduce flood risk,
avoid the creation of new risk,
and build resilience of
communities, ecosystems and
critical infrastructure

Goal 3



Strengthen flood risk
governance in the Lower
Mainland

Key Directions (Recommended Actions)

- Regional prioritization of flood risk areas
- Holistic approach to flood risk reduction
- Integrated approaches (e.g. structural and non-structural)
- Enhancing First Nations capacity
- Improving collaboration and coordination
- Regional technical services, information sharing, education

Implementation - Governance

Proposal to establish a new regional flood entity, mandated by the Province of BC, aligned with UNDRIP.

- a) Purpose - To oversee implementation of the LMFMS
- b) Board structure and professional staff
- c) Responsibilities:
 - **Regional priorities**
 - **Funding decisions**
 - Collaborative flood planning
 - Technical services
 - Public education

Implementation - Funding






Establish a long-term, stable funding program to:

- a) Implement LMFMS recommendations
- b) Implement projects, policies and programs aligned with the LMFMS
- c) Support the operations of the regional flood entity

Draft 1 Review and Comment

Comments on Draft 1
by March 29, 2021 to
floodstrategy@fraserbasin.bc.ca

We encourage a coordinated
review and response within partner
organizations

2. Develop a single and consistent floodplain map, flood hazard area map, or set of maps for the Lower Mainland and update over time as appropriate. This could be an official floodplain designation map or intended as a high-level planning tool.				
	Level of Support			Recommendation 2 Comment
	High	Medium / Mixed	Low	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3. Develop flood maps to inform emergency preparedness and response (including identifying people and assets at risk, evacuation planning, etc.)				
	Level of Support			Recommendation 3 Comment
	High	Medium / Mixed	Low	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
4. Identify needs for and develop other mapping tools using existing information to inform different audiences. For example, public facing maps to support understanding and real estate purchases and/or support provincial / federal programs such as the National Risk Profile, etc.				
	Level of Support			Recommendation 4 Comment
	High	Medium / Mixed	Low	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
5. Develop a sustainable, long-term source of funding for the BC Storm Surge Forecast Model (for flood response).				
	Level of Support			Recommendation 5 Comment
	High	Medium / Mixed	Low	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
6. Explore the feasibility, value, and opportunities for developing a regional coastal flood model for the Lower Mainland to improve understanding of coastal flood hazards and risks (for longer-term planning) and consider the potential and value of integrating the coastal model with the Lower Fraser River HECRAS 2D flood model.				
	Level of Support			Recommendation 6 Comment
	High	Medium / Mixed	Low	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Proposed Timeline for Finalizing Strategy

May – July

Draft 2 Partner/Participating Organization Review

Sep – Oct

Draft 3 Public Engagement

Nov 2021

Final Strategy

Questions?

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