

**METRO VANCOUVER REGIONAL DISTRICT  
FLOOD RESILIENCY TASK FORCE**

**REGULAR MEETING**

**Wednesday, June 22, 2022**

**1:00 p.m.**

**Meeting conducted electronically pursuant to the Procedure Bylaw  
28<sup>th</sup> Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia  
Webstream available at <http://www.metrovancouver.org>**

**A G E N D A<sup>1</sup>**

**1. ADOPTION OF THE AGENDA**

**1.1 June 22, 2022 Regular Meeting Agenda**

That the Flood Resiliency Task Force adopt the agenda for its regular meeting scheduled for June 22, 2022 as circulated.

**2. ADOPTION OF THE MINUTES**

*pg. 3*

**2.1 April 20, 2022 Regular Meeting Minutes**

That the Flood Resiliency Task Force adopt the minutes of its regular meeting held April 20, 2022 as circulated.

**3. DELEGATIONS**

**4. INVITED PRESENTATIONS**

**4.1 Linda A. Brown, Mayor, City of Merritt**

Subject: Flood Experience from the City of Merritt

**4.2 Steve Litke, Director, Water Programs, Fraser Basin Council**

Subject: Lower Mainland Dike Assessment Update

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Metro Vancouver's Emergency Response – Flood Preparedness**

*Verbal Update*

Designated Speaker: Brant Arnold-Smith, Program Manager, Corporate Services

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<sup>1</sup> Note: Recommendation is shown under each item, where applicable.

**5.2 Task Force Feedback to Lower Mainland Flood Management Strategy Leadership Committee**

*Verbal Update*

Designated Speaker: Steve Litke, Director, Water Programs, Fraser Basin Council, and Neal Carley, General Manager, Parks & Environment

**5.3 Manager's Report**

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That the Flood Resiliency Task Force receive for information the report dated June 14, 2022, titled "Manager's Report".

**6. INFORMATION ITEMS**

**7. OTHER BUSINESS**

**8. BUSINESS ARISING FROM DELEGATIONS**

**9. RESOLUTION TO CLOSE MEETING**

**10. ADJOURNMENT/CONCLUSION**

That the Flood Resiliency Task Force adjourn/conclude its regular meeting of June 22, 2022.

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Membership:

Dingwall, Bill (C) – Pitt Meadows  
Hodge, Craig (VC) – Coquitlam  
Guerra, Laurie – Surrey  
Harvie, George – Delta

Hillman, Mike – Burnaby  
McCutcheon, Jen – Electoral Area A  
Morden, Mike – Maple Ridge  
Puchmayr, Chuck – New Westminster

Richter, Kim – Langley Township  
Steves, Harold – Richmond  
West, Brad – Port Coquitlam  
Wiebe, Michael – Vancouver

**METRO VANCOUVER REGIONAL DISTRICT  
FLOOD RESILIENCY TASK FORCE**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Flood Resiliency Task Force held at 1:00 p.m. on Wednesday, April 20, 2022 in the 28<sup>th</sup> Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

**MEMBERS PRESENT:**

Chair, Mayor Bill Dingwall\*, Pitt Meadows  
 Vice Chair, Councillor Craig Hodge\*, Coquitlam  
 Mayor Brad West\*, Port Coquitlam (departed at 2:27 p.m.)  
 Mayor Mike Morden\*, Maple Ridge  
 Councillor Chuck Puchmayr, New Westminster (departed at 2:31 p.m.)  
 Councillor Mike Hillman, Burnaby  
 Councillor Mike Wiebe, Vancouver  
 Councillor Harold Steves\*, Richmond  
 Councillor Laurie Guerra\*, Surrey  
 Councillor Kim Richter\*, Township of Langley  
 Mayor George Harvie\*, Delta

**MEMBERS ABSENT:**

Director Jen McCutcheon, Electoral Area A

**STAFF PRESENT:**

Neal Carley, General Manager, Parks and Environment  
 Jerry W. Dobrovolny†, Chief Administrative Officer  
 Natalia Melnikov, Legislative Services Coordinator, Board and Information Services

**1. ADOPTION OF THE AGENDA**

**1.1 April 20, 2022 Regular Meeting Agenda**

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force adopt the agenda for its regular meeting scheduled for April 20, 2022 as circulated.

**CARRIED**

\*denotes electronic meeting participation as authorized by Section 3.6.2 of the *Procedure Bylaw*

† denotes electronic meeting participation

**2. ADOPTION OF THE MINUTES**

**2.1 February 23, 2022 Regular Meeting Minutes**

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force adopt the minutes of its regular meeting held February 23, 2022 as circulated.

**CARRIED**

**3. DELEGATIONS**

No items presented.

**4. INVITED PRESENTATIONS**

**4.2 Henry Braun, Mayor, City of Abbotsford**

Henry Braun, Mayor, City of Abbotsford spoke to the Committee about the atmospheric river event in November 2021, outlining the loss of livestock and economic impact due to the flooding as well as the recovery costs, which are being shared by the City of Abbotsford, the Provincial and the Federal government. He highlighted the importance of the joint recovery efforts, flood mitigation, the significance of the recovery of the agricultural businesses affected by the flood, lessons learned and actions to be taken to prevent the future events.

In response to questions, members were informed that the complete cost of the catastrophic event is still to be determined, as there were 28 landslides to be cleared, and that due to on-going litigation some details cannot be shared at this time. The Committee was also informed about the continuous flood mitigation actions underway, the infrastructure planning to prevent future events and the impacts on community members' mental health.

**4.1 Spencer Coyne, Mayor, Town of Princeton**

Spencer Coyne, Mayor, Town of Princeton, provided the Committee a presentation outlining the community impacts of the November 2021 flooding event, including the lost of infrastructure caused by the flood and the freezing temperatures that followed. Mayor Coyne emphasized the lack of local resources available to coordinate donations received by the Town at the time of the event.

In response to questions, members were informed about the traffic impediments at the time of the event and necessary upgrades to Highway 1 and Highway 5. They were also informed the Town is on the boiled water advisory due to the infrastructure failure, hundreds of homes which need to be removed, and the need for funding and regulatory decisions from the Provincial and Federal governments to upgrade the regional diking system.

Presentation material titled "Atmospheric River – Town of Princeton Flood" is retained with the April 20, 2022 Flood Resilience Task Force agenda.

**4.3 Jason Lum, Board Chair, Fraser Valley Regional District, and Graham Daneluz, Director, Planning and Development, Fraser Valley Regional District**

Jason Lum, Board Chair, Fraser Valley Regional District, and Graham Daneluz, Director, Planning and Development, Fraser Valley Regional District, provided the Flood Resilience Task Force members with a presentation on the flood the Fraser Valley Regional District experienced, outlining the water damage and landslides that occurred during the November 2021 Atmospheric River, the impact on households, businesses, and infrastructure.

Members were informed about some challenges that need regional and provincial solutions, including the need for accessible financial assistance. In response to questions, members were informed on the disproportionately affected groups, including the agricultural community, especially temporary farm workers who had to be evacuated and lost their contracts and all of their belongings, as well as the First Nations communities. Members were also informed about the need for joint efforts to re-build the infrastructure and flood mitigation strategy to prevent the future events.

Presentation material titled “2021 Atmospheric River Event” is retained with the April 20, 2022 Flood Resiliency Task Force agenda.

2:27 p.m. Mayor West departed the meeting.

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force receive for information presentations by Mayor Braun, City of Abbotsford, Mayor Coyne, Town of Princeton, and Jason Lum, Board Chair, Fraser Valley Regional District.

**CARRIED**

2:31 p.m. Councillor Puchmayr departed the meeting.

**4.4 Steve Litke, Director, Water Programs, Fraser Basin Council**

Steve Litke, Director, Water Programs, Fraser Basin Council, provided the Committee with a presentation on the Lower Mainland Flood Strategy, outlining the feedback received from the participating organizations that underlined differing perspectives on several strategic issues, and the need for more significant First Nations participation and alignment of the Lower Mainland Flood Management Strategy process with key components of the *United Nations Declaration on the Rights of Indigenous Peoples*. Mr. Litke highlighted the need for more direction on funding and decision-making arrangements for the strategy’s implementation.

Members were provided an update on the available flood information and tools, including the Lower Fraser Hydraulic Model, dike systems assessments, and the new analysis for mitigation priorities, including the Lower Mainland dike and community vulnerability assessments.

In response to questions, members were informed about studies anticipating future flooding events and the need to perform a cost analysis to assess the impacts of the climate change and natural weather events.

Presentation material titled “Lower Mainland Flood Management Strategy” is retained with the April 20, 2022 Flood Resiliency Task Force agenda.

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force receive for information the presentation by Steve Litke, Fraser Basin Council.

**CARRIED**

Councillor Hillman absent at the vote.

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Process for First Nations Engagement with the Flood Resiliency Task Force**

Report dated April 12, 2022, from Neal Carley, General Manager, Parks and Environment, seeking the MVRD Board’s authorization to proceed with First Nations engagement for the Flood Resiliency Task Force.

Members requested a formal engagement plan be created and guided by the Indigenous Relations staff.

**Request of Staff**

Staff were requested to complete a formal engagement plan guided by the Indigenous Culture Advisor to outline the goals, objectives, timelines, milestones, and deliverables of the engagement work and how it will influence the strategy.

**It was MOVED and SECONDED**

That the MVRD Board authorize staff to proceed with the First Nations engagement process as presented in the report dated April 12, 2022, titled “Process for First Nations Engagement with the Flood Resiliency Task Force.”

**CARRIED**

**5.2 Manager’s Report**

Report dated April 12, 2022, from Neal Carley, General Manager, Parks and Environment, providing the Flood Resiliency Task Force with an update on the Flood Resiliency Task Force 2022 Work Plan, the Lower Mainland Flood Management Strategy, the Dike Vulnerability Assessment, and a summary of available flood information and tools.

Discussion ensued regarding the need to act and make changes to the existing standards and to raise dikes as a flood mitigation measure as well as the need to involve all levels of government in further discussions and funding infrastructure upgrades.

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force receive for information the report dated April 12, 2022, titled "Manager's Report".

**CARRIED**

**6. INFORMATION ITEMS**

No items presented.

**7. OTHER BUSINESS**

No items presented.

**8. BUSINESS ARISING FROM DELEGATIONS**

No items presented.

**9. RESOLUTION TO CLOSE MEETING**

No items presented.

**10. ADJOURNMENT/CONCLUSION**

**It was MOVED and SECONDED**

That the Flood Resiliency Task Force conclude its regular meeting of April 20, 2022.

**CARRIED**

(Time: 3:37 p.m.)

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Natalia Melnikov,  
Legislative Services Coordinator

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Bill Dingwall, Chair

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To: Flood Resiliency Task Force

From: Neal Carley, General Manager, Parks & Environment

Date: June 14, 2022 Meeting Date: June 22, 2022

Subject: **Manager's Report**

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### **RECOMMENDATION**

That the Flood Resiliency Task Force receive for information the report dated June 14, 2022, titled "Manager's Report".

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### **Flood Resiliency Task Force 2022 Work Plan**

The attachment to this report sets out the Task Force's Work Plan for 2022. The status of each work program element is indicated as pending, in progress, or complete.

### **Dike Vulnerability Assessment Update**

The Fraser Basin Council, with funding from the Ministry of Forests, Flood Safety Section, retained Northwest Hydraulic Consultants to use a 2D hydraulic model to compare the flood profile (water surface elevation) of the 50-year, 100-year, 200-year, and 1894 flood scenarios, with dike crest elevations surveyed most recently by the Province of BC between 2019 and 2020.

Excel tables were prepared for each lower Fraser River dike that is regulated under the *BC Dike Maintenance Act*, to compare the modelled flood water levels with dike crests and associated freeboard to:

- Identify potential locations for dike overtopping or loss of freeboard (notwithstanding other potential dike failure mechanisms such as piping)
- Support the operations, maintenance, and flood mitigation planning for diking authorities prior to the 2022 freshet

As with all flood modelling and assessment, diking authorities should also ground-truth the results, particularly potential low spots or low sections of dikes that are shown in the modelled water level-dike survey comparisons.

The Fraser Basin Council is also exploring the option to create a "heat map" based on a combination of the status of flood protection infrastructure and the probability and consequences associated with potential dike failures.

### **First Nations Engagement with the Flood Resiliency Task Force**

As approved by the MVRD Board on April 29, 2022, letters were sent to the First Nations in the region to invite First Nations engagement with the Flood Resiliency Task Force. To date, responses, all positive, have been received from four (4) First Nations (Kwantlen First Nation, Kwikwetlem First Nation/kʷikʷəłəm, Squamish Nation/Skwxwú7mesh Úxwumixw, and Tsawwassen First Nation).



An introductory meeting will be arranged in July, and First Nations representative will be invited to engage with the Flood Resiliency Task on September 28, 2022.

**Task Force Site Tour – Wednesday, June 29, 2022**

The Flood Resiliency Task Force will conduct a site tour of flood management infrastructure on June 29, 2022. The tour will include a first-hand look at dikes and pump stations in Pitt Meadows. Pitt Meadows staff will provide information on the flood management system, and Fraser Basin Council staff will provide updates on flood management in the lower mainland. The Task Force will also have the opportunity to learn about the use of dikes for the Regional Parks Pitt River Greenway.

**Attachment**

Flood Resiliency Task Force 2022 Work Plan, dated June 14, 2022.

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## Flood Resiliency Task Force 2022 Work Plan

Report Date: June 14, 2022

## Priorities

<b>1<sup>st</sup> Quarter</b>	<b>Status</b>
Review the <i>Lower Mainland Flood Management Strategy</i>	Completed
Review impacts on the region and Metro Vancouver Regional District members by the severe flooding in November and December of 2021	Completed
<b>2<sup>nd</sup> Quarter</b>	
Identify the high level status of Metro Vancouver infrastructure for flood resiliency	In Progress
Identify the high level status of flood risk assessments by member jurisdictions	In Progress
Identify risks and gaps in the existing infrastructure to mitigate flooding	In Progress
Identify estimated short term capital investment to repair damage to the infrastructure from recent floods	In Progress
Identify outreach and feedback opportunities with MVRD members, Fraser Valley Regional District, First Nations, diking authorities/committees, provincial government, and Federal government	In Progress
Identify estimated longer term capital investment to bring infrastructure to withstand predicted flooding due to climate change	Pending
Task Force Tour of Flood Resiliency Works	In Progress
<b>3<sup>rd</sup> Quarter</b>	
Consider Metro Vancouver regional priorities and issues for the Lower Mainland Flood Management Strategy	Pending
<b>4<sup>th</sup> Quarter</b>	
Identify roles and responsibilities of all orders of government to financing, developing, and maintaining the infrastructure	Pending