The background of the slide is a scenic photograph of a calm lake. In the foreground, the water is still, reflecting the sky and the silhouettes of evergreen trees. A layer of mist or fog hangs just above the water's surface, creating a soft, ethereal atmosphere. The trees in the background are dark against a pale, overcast sky. The overall color palette is muted, with blues, greys, and greens, accented by the red design elements.

# **FVRD FLOOD HAZARD MANAGEMENT SERVICE PROVISION: POLICIES TO GUIDE SERVICE DELIVERY IN FVRD ELECTORAL AREAS**

February 13, 2025

Electoral Area Services Committee



# AGENDA

01

BACKGROUND & PROJECT OVERVIEW

02

POLICY OBJECTIVES & VISION

03

OVERVIEW OF DRAFT POLICIES

04

DISCUSSION / Q&A

# BACKGROUND



**2009-10**

Sustainable Water  
Service Policy  
created & Water  
Gap Analysis  
completed



**2012-13**

Sustainable Sewer  
Service Policy  
created & Sewer  
Gap Analysis  
completed



**2022-23**

Sewer Policy  
updated with  
focus on  
financial  
viability



**2024-25**

Flood Protection  
Policy development  
and preparation of  
Flood Gap Analysis  
(in progress)

# POLICY SCOPE

- Policy focus is on the management of specific flood hazard management infrastructure within FVRD electoral areas, including local service areas for:
  - Stormwater management infrastructure; and,
  - Flood and debris hazard infrastructure.
- Emergency management covered through *FVRD Emergency Management Program Policy*

# KEY SCOPE LIMITATION

- The policies focus on management of local service areas
- The policies do not preclude the FVRD from exploring or entering into sub-regional or regional partnerships to address broader watershed, flood hazard management and climate change adaptation objectives.



# CURRENT SERVICE EXAMPLES

Elbow Creek  
Dikes &  
Sediment  
Basin (Area C)

Popkum Storm  
Drainage  
System  
(Area D)

Baker Trails  
Debris Control  
(Area E)

Rexford Creek  
Debris Basin  
(Area E)

Wilson Road  
Dike &  
Floodbox  
(Area E)

Cascade Dike  
(Area F)

Frosst Creek  
Dikes & Debris  
Basins (Area H)



# KEY CONSIDERATIONS



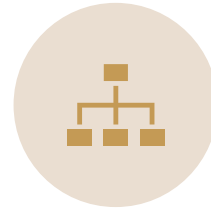
Level of Service  
Considerations



Governance &  
Scope of FVRD  
Service  
Responsibilities



Funding &  
Financial  
Sustainability



Priority-Setting  
for Projects &  
Initiatives




Guidance for the  
Potential  
Acquisition of  
Services




Guidance for  
Relationships




# OBSERVATIONS FROM OTHER REGIONAL DISTRICTS

 Very limited examples of RDs owning and operating flood protection infrastructure

 Regional Districts are critical partners in achieving funding

 Relationships & collaboration are key

 There's a current emphasis on flood forecasting and emergency management

 For some types of functions, service areas can be broader if providing benefit to larger geographic areas

The background of the slide is a photograph of a calm lake at sunrise. The water is still, reflecting the sky and the silhouettes of evergreen trees on the far shore. A light mist or fog hangs over the water, and the sky is a pale, hazy blue. The overall mood is serene and natural.

# DRAFT VISION & OBJECTIVES



# DRAFT FLOOD POLICY VISION

## VISION

The FVRD supports sustainable electoral area communities by taking a holistic approach to flood hazard management.

This approach enables an understanding of the existing flood hazard landscape, the achievable level of service around flood hazard management, and aims to inform land use planning decisions.

The FVRD supports a collaborative approach to flood hazard management including senior government agencies and Indigenous communities.





# OBJECTIVES

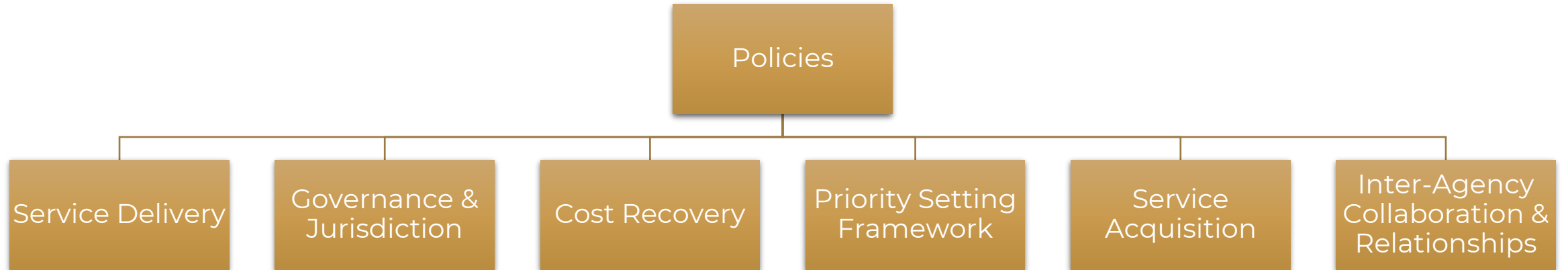
1. To effectively manage FVRD-owned flood hazard management infrastructure.
2. To effectively prioritize recommended upgrades, projects and initiatives related to flood hazard management.
3. To guide the FVRD's approach to the acquisition of new and existing flood management infrastructure.
4. To support a clear understanding of flood hazard management roles and responsibilities of the FVRD, including the linkage to emergency management, and relationships with other jurisdictions.
5. To support flood hazard management and clearly delineate jurisdictional roles and responsibilities in electoral areas in collaboration with the Province of BC, Indigenous communities, improvement districts and other key stakeholders.
6. To guide the review of flood hazard management considerations for development applications.
7. To support the development of climate change adaptation strategies in the design of flood hazard management infrastructure.

The background of the slide is a photograph of a calm lake at sunrise. The water is still, reflecting the sky and the silhouettes of tall evergreen trees on the far shore. A soft, golden light from the rising sun creates a misty atmosphere over the water. The sky is a pale, clear blue.

# OVERVIEW OF DRAFT POLICIES



# Flood Protection Policy Framework



# PART 1: SERVICE DELIVERY



Policies to guide the establishment, design, operations and maintenance of existing FVRD flood hazard management infrastructure.



**Objective:** To ensure that FVRD flood hazard management infrastructure safeguards the public and protects property.

# KEY POLICY DIRECTIONS

## 1.1 SERVICE ESTABLISHMENT

The FVRD will typically not establish or expand flood hazard management service areas unless:

1. FVRD will own the infrastructure
2. System is designed to be financially sustainable
3. Appropriate access and legal tenure are in place
4. All government approvals are in place



# KEY POLICY DIRECTIONS

## 1.2 EXPANDING SERVICE DELIVERY

The FVRD will extend or expand flood hazard management services at the request of property owners, and only if doing so is shown to be socially, economically and environmentally sustainable.

The FVRD will require completion of a financial viability plan prior to extending or expanding existing services.

# KEY POLICY DIRECTIONS

## 1.3 LEVELS OF SERVICE

The FVRD will maintain the base level of service defined below. Expanded levels of service will be considered based on request and consultation with participating service area property owners.

Existing/Proposed Infrastructure	Base Levels of Service	Expanded Levels of Service
<b>Existing</b>	Current state of infrastructure is operating as designed.	Upgraded to meet the current day minimum level of service as defined in the relevant regulations, standards, and design guidelines, including considerations for climate change.
<b>Proposed</b>	Designed and constructed to meet the minimum level of service as defined in the relevant regulations, standards and design guidelines.	Designed and constructed to exceed the minimum level of service as defined in the relevant regulations, standards, and design guidelines.

# KEY POLICY DIRECTIONS

## 1.4 FLOOD CONSTRUCTION LEVEL

The FVRD will encourage, and where possible, require that new diking infrastructure is constructed to the appropriate flood construction level consistent with Provincial Regulations.

## OTHER POLICY TOPICS

1.5 Quality Design and Construction

1.6 Operation And Maintenance

1.7 System Reliability

1.8 Coordinating Land-use Planning

1.9 Keeping Policies And Practices Up To Date

1.10 Hydrometric Monitoring

*- The FVRD is not currently responsible for hydrometric monitoring and flood forecasting and will consult with the best available data from the Federal Government and the Province to inform decisions.*

# PART 2: GOVERNANCE & JURISDICTION



Policies to guide **decision-making related to FVRD flood hazard management infrastructure** and to ensure a clear understanding of jurisdiction and service delivery responsibilities.



**Objective:** To guide board decision-making on electoral area flood hazard management infrastructure and to provide a clear understanding to residents of responsibility and the scope of FVRD electoral area service delivery. .

## RESPONSIBILITY FOR FLOOD HAZARD MANAGEMENT SERVICES

Type of Land	Responsibility for Flood Hazard Management Services (excluding Emergency Response and Regulatory Bylaws)	FVRD Role in Flood Hazard Management (excluding Emergency Response)
Electoral Area Service Area	FVRD	Maintain service in accordance with establishment bylaw and annual requisition
Improvement District Area	Improvement District	None (except as requested by Improvement District and approved by FVRD Board, such as to facilitate grant funding)
Electoral Area Land Outside of an FVRD or Improvement District Service Area	Private Property Owners	None unless service area is requested and created through a service area establishment bylaw and annual requisition
Crown Land/Road Rights of Way (where service areas do not exist)	Provincial	None
Indigenous Reserve Lands	Indigenous Governing Body	Support in collaboration with other levels of government
Member municipalities	Municipal	None unless sub-regional/regional service is requested and established

**Key Discussion Point** – FVRD role ‘when to step in’

# KEY POLICY DIRECTIONS

## 2.1 DECISION-MAKING

The FVRD will make all decisions regarding flood hazard management service provision by carefully considering short and long-term social, economic and environmental impacts, and will strive for consistency, clarity and transparency in all decisions.

## 2.2 DELEGATING DECISION-MAKING AUTHORITY

The FVRD Board maintains decision-making authority regarding FVRD owned flood hazard management infrastructure (i.e. for overall governance) and decision-making will not be delegated to a commission or other body.

## 2.3 PUBLIC EDUCATION AND ENGAGEMENT

The FVRD will strive to educate and engage residents on flood hazard management service provision.

## PART 3: COST RECOVERY



Policies on how costs associated with providing flood hazard management services should be recovered.



**Objective:** Policies on how costs associated with providing flood hazard management services should be recovered.



## KEY POLICY DIRECTIONS

### 3.1 FINANCIAL SUFFICIENCY AND CERTAINTY

The FVRD will take proactive measures to ensure sufficient funding is available to provide the achievable level of flood hazard management services.

### 3.2 POOLING COSTS AND REVENUES - KEY DISCUSSION POINT

The FVRD will explore opportunities to pool costs and revenues (but not debt) across multiple FVRD owned flood hazard management service areas and/or establish new electoral area or region-wide services for flood hazard management activities with broader benefit.

### 3.3 THE “USER-PAY” PRINCIPLE (COST PER LOT)

The FVRD will adopt an equitable approach based on the “user-pay” principle for recovering costs. Service area boundaries will be expanded only if the cost of doing so is financed exclusively by the newly serviced area.

# PART 4: PRIORITY SETTING FRAMEWORK

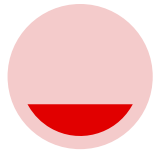


Policies that outline the FVRD's priorities regarding funding and implementation of flood hazard management projects.



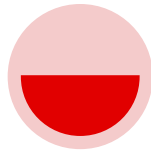
**Objective:** : To allocate resources to top priorities.

# PRIORITY SETTING FRAMEWORK



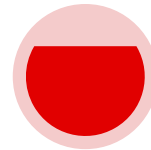
Step 1

Complete  
Project  
Summaries



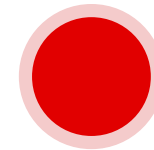
Step 2

Compare  
with  
Established  
Priorities



Step 3

Consider  
Cost Per  
Lot  
Benefiting



Step 4

Evaluation  
Matrix

## KEY DISCUSSION POINT – ESTABLISHED PRIORITIES

1. If Ordered by the Province (e.g. to undertake mitigation efforts, accept ownership, or implement new statutory requirements)
2. Sustain Existing Levels of Service to Manage Flood Risk (life, critical infrastructure, property, etc.)
3. Improve Financial Sustainability of Flood Management Services
4. Enhance Levels of Service to Existing Service Areas (i.e. Climate Change, alignment with new standards)
5. Implement New Services/Service Area Extensions for Existing Development
6. Implement New Services/Service Area Extensions for New Development

# PART 5: FLOOD HAZARD MANAGEMENT SERVICE ACQUISITION



Policies to guide the acquisition of existing or new flood hazard management services



**Objective:** : To clarify the conditions in which the FVRD would consider acquiring flood hazard management responsibilities

## GENERAL PRINCIPLE:

The FVRD does not proactively seek to own additional flood hazard management infrastructure. However, there may be examples where the FVRD will consider acquisition, including:

- Orphaned infrastructure
- Newly developed infrastructure
- Infrastructure actively managed by others

# KEY POLICY DIRECTIONS

## 5.1 INITIATING THE ACQUISITION OF FLOOD INFRASTRUCTURE

Initiation of acquisition will come primarily from third parties:

- Board of an Improvement District
- Province
- Beneficiaries/users of infrastructure
- Owners of infrastructure, including developers

# KEY POLICY DIRECTIONS

## 5.2 CAPACITY TO ACQUIRE

Prior to advancing the acquisition process, the FVRD will assess its capacity to acquire any existing or newly developed infrastructure. A key factor will be the status of currently owned flood hazard management infrastructure and capacity to deliver on existing needs.

## 5.3 FINANCIAL VIABILITY OF FLOOD INFRASTRUCTURE

The FVRD will not acquire any existing or newly developed infrastructure unless it is financially sustainability to own and operate in accordance with Policy 1.1.

This includes requiring the provision of resources from the Province necessary to fulfill any newly assigned responsibilities.



## OTHER POLICY TOPICS:

- 5.4 Public assent process for flood infrastructure
- 5.5 Comprehensive assessment
- 5.6 Standards for new flood hazard infrastructure
- 5.7 Payment for flood hazard management infrastructure
- 5.8 Transfer of all financial assets, rights-of-way, easements, approvals and permits at conversion
- 5.9 Transfer of infrastructure and legal risk
- 5.10 Transfer of flood infrastructure without valid approvals/permits
- 5.11 Constructed simple ownership works protected by rights-of-way, easements, leases or fee
- 5.12 Existing debt and reserves
- 5.13 Cost of conversions
- 5.14 Tangible capital assets
- 5.15 Seed funding for long-term capital replacement

# PART 6: INTER-AGENCY COLLABORATION AND RELATIONSHIPS



Policies to guide FVRD Relationships with other bodies involved in flood hazard management service provision



**Objective:** To pursue successful collaboration in addressing flood hazard management, including relationships with Indigenous governing bodies, other levels of government, and agencies.

# KEY POLICY DIRECTIONS

## 6.1 INDIGENOUS RELATIONSHIP BUILDING

The lands and waters that make up the area that we now call the Fraser Valley Regional District (FVRD) have been home to the Nlaka'pamux, St'at'imc, Stó:lō, and Sts'ailes Peoples for generations. As confirmed in the FVRD Strategic Plan, the FVRD is committed to building relationships and working towards advancing reconciliation with Indigenous Peoples. Central to this commitment is building collaborative relationships with neighbouring Indigenous communities.

This collaboration is especially important when addressing challenges like flood events, which transcend boundaries and require cooperative efforts for effective flood hazard management and service delivery. This process will be driven by ongoing relationship-building, listening, and learning. Where mutual interest exists, the FVRD will seek opportunities to collaborate with Indigenous communities to create cross-boundary flood management plans. The FVRD is also committed to developing protocol agreements with Indigenous communities to address shared priorities, whether related to service delivery or emergency management.

# KEY POLICY DIRECTIONS

## 6.2 IMPROVEMENT DISTRICT RELATIONSHIPS

The FVRD will continue building relationships and explore opportunities to engage and partner with improvement districts to advance collective responses to flood management.

The FVRD may support improvement districts provided staff time is recoverable through external funding sources and does not utilize electoral area tax base funding.

## 6.3 PROVINCIAL AND FEDERAL RELATIONSHIPS

The FVRD will leverage relationships to explore jointly beneficial projects and create partnerships to mitigate flood risks and safeguard residents and infrastructure.

# KEY POLICY DIRECTIONS

## 6.4 MULTI-JURISDICTIONAL SERVICE DELIVERY

The FVRD may seek opportunities to form multi-jurisdictional partnerships to facilitate sustainable and effectively delivery of flood hazard management infrastructure and services within a watershed.

The background of the slide is a photograph of a calm lake surrounded by a dense forest of evergreen trees. A layer of mist or fog hangs over the water, creating a serene and atmospheric scene. The trees and sky are reflected in the still water.

# DISCUSSION / Q&A



# DISCUSSION QUESTIONS

Are there any items that you feel have not been addressed through the draft policy document?

Are there any aspects of the policy that seem unrealistic to achieve?

Do you have any other questions or comments?





**THANK YOU**