FLOOD HAZARD MANAGEMENT SERVICE PROVISION

POLICIES TO GUIDE SERVICE DELIVERY IN THE ELECTORAL AREAS OF THE FVRD

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INTRODUCTION

The FVRD commissioned a Flood Infrastructure Policy Update and Gap Analysis in November 2023. The intent of the project was to develop a flood hazard management servicing policy framework to aid in managing FVRD local service areas for flood hazard management in electoral areas, and to prioritize upgrades, projects, and initiatives related to flood hazard management.

This document, which is one of two main documents produced by the Gap Analysis, contains policies for establishing and delivering FVRD-owned flood infrastructure services in electoral areas, governing those services, recovering costs, setting priorities, and providing guidance for potential future service acquisitions. It also contains policies regarding relationships with respect to flood hazard management service provision. The other main document is a compilation of the existing flood infrastructure in the FVRD electoral areas and is bound separately.

The scope of the Flood Hazard Management Service Provision Policy includes any existing and potential new or expanded FVRD local service areas in electoral areas that provide either:

- Urban stormwater infrastructure that is owned and operated by the FVRD and contributes to flood hazard management (e.g. Popkum Storm Drainage); or,

- Flood and debris hazard infrastructure designed to prevent major overland flow (e.g. Baker Trails Flood and Debris Control, Wilson Road Dike).

The Flood Hazard Management Policies herein speak to service delivery within a flood reduction service, and flood incident preparedness framework, but do not consider emergency management service delivery in emergency events. The FVRD Emergency Management Program Policy outlines the level of service to be expected from the Emergency Management Program and takes priority over this document.

FLOOD HAZARD MANAGEMENT FRAMEWORK:

Within a broader provincial context, the Government of BC administers the Dike Maintenance Act, Guidelines for Management of Flood Infrastructure Works in BC, Water and Streamside Acts and Regulations, the Emergency and Disaster Management Act, and other related legislation. Specifically with respect to flood hazard management, the Province does not manage diking infrastructure. However, the Province sets design and maintenance standards, and has approving authority in relation to the construction of new dikes or maintenance or upgrading of existing and orphan dikes. These approvals are undertaken by the Provincial Inspector of Dikes, and approvals will only be granted if:

1. the local government has passed a resolution to become the diking authority and become responsible for the ownership, operation and maintenance of the dike; and,

2. the diking authority acquires and maintains full legal access to the structure through land ownership or registration of statutory right(s)-of-way.

Except for the FVRD Regional Growth Strategy (which addresses both municipalities and electoral areas), the FVRD's planning and regulatory context largely focuses on plans, policies, regulations and bylaws for

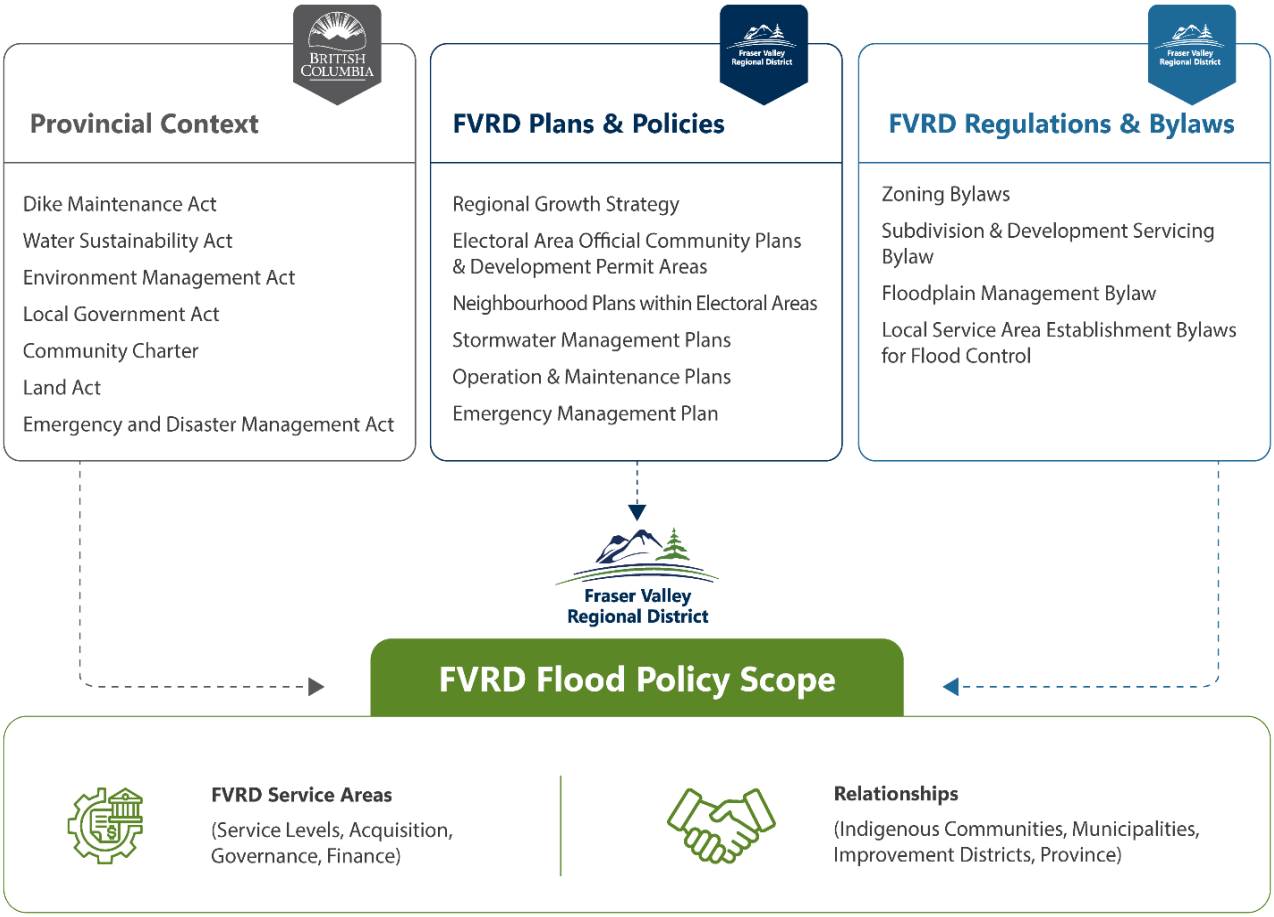
electoral areas. Within municipal boundaries, flood hazard management is a municipal responsibility, and the FVRD is not responsible for municipal infrastructure. In addition to this, there are numerous neighbouring Indigenous communities, each with flood hazard management considerations on First Nation reserve lands. And finally, FVRD electoral areas overlaps with improvement districts, which have responsibilities for flood hazard management. Within this context, the FVRD is responsible for flood hazard management insofar as it:

1. has established local service areas to operate and manage flood hazard management infrastructure;
2. establishes the land use planning and regulatory framework in electoral areas, including a floodplain bylaw and various other plans, policies, regulations and bylaws; and,
3. is responsible for emergency management in electoral areas, as articulated in the FVRD Emergency Management Plan.

As indicated above, the scope of this Flood Hazard Management Policy is on electoral area local service areas that are designed to protect against major overland flow (e.g. dikes and debris control infrastructure) and/or contribute to flood hazard management through the provision of stormwater management system capacity (e.g. urban drainage systems). This policy does not focus on stormwater management features for which there is no local service area (e.g. stormwater management on Crown land, private property, or within Ministry of Transportation road dedications and not included as an FVRD local service area).

The figure below illustrates the context for the FVRD Flood Hazard Management Service Provision Policy. As illustrated, the document fills a gap by focusing on:

1. policies to guide the establishment and delivery of FVRD flood hazard management services within electoral areas;
2. policies to guide FVRD flood hazard management collaboration with other jurisdictions; and,
3. policies to guide emergency management for flooding, recognizing the multi-jurisdictional environment and the need for strong relationships and coordination to improve flood hazard management outcomes, as noted in the FVRD Emergency Management Plan.



THE POLICIES:

The policies in this document are intended to provide guidance to the FVRD Board and staff with respect to decisions regarding flood hazard management service provision within electoral areas. The policies have been developed to meet seven main 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.*

This document contains policies that apply to both FVRD-owned flood hazard management infrastructure and the FVRD's approach to infrastructure that is either orphaned or owned and operated by others. The FVRD has full authority to manage infrastructure within established FVRD local service areas. However, outside of these areas, the FVRD relies on relationships and a coordinated approach with other jurisdictions. In some cases, there may also be a need to consider broader future service responsibilities.

Many of the policies in this document have been purposely written to provide only high-level guidance in order to afford flexibility in terms of implementation. Implementation plans will likely evolve over time to reflect changing circumstances. The intent is for this document to be a "living document." The policies should be reviewed as necessary to ensure they continue to support the FVRD's vision for flood hazard management.

These polices are intended to guide the FVRD's typical approach to local service areas for Flood Hazard Management Service Provision within FVRD electoral areas. These 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.

THE 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.

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.

1.1 SERVICE ESTABLISHMENT

The FVRD will typically not establish or expand flood hazard management service areas unless each of the following conditions are met:

1. The FVRD will own the infrastructure (i.e., ownership of the infrastructure will be transferred to the FVRD at time of financial viability or at the discretion of the FVRD);
2. The system is designed to be financially sustainable to own and operate. This must be demonstrated through the development of a financial viability plan that illustrates:
    a. How the capital costs are to be recovered on an annual basis per property until the service area is built-out;
    b. How the operating costs and asset renewal/replacement costs are to be recovered on an annual basis per property (until service area is built-out) with consideration for: the high and low estimates for build-out within the service area; and, financial sustainability especially during the early stages of build-out when a smaller number of property owners may be responsible for operating costs – for example, there may be a need to consider measures such as a rate stabilization fund (e.g. through developer contributions) to ensure that the cost to user/owner is sustainable through all stages of build out;
3. There is confirmation that appropriate access and legal tenure are in place for the flood hazard management infrastructure and any associated lands required for maintenance access; and,
4. All government approvals are in place.

The FVRD will prohibit the creation of any new flood hazard management infrastructure that does not meet these criteria.

Acquisition of existing flood hazard management infrastructure (e.g. improvement district infrastructure or orphaned infrastructure) is discussed further in Part 5: Flood Hazard Management System Acquisition Policies.

Possible Implementation Steps:

1. *Amend land-use plans where required to direct growth (Regional Growth Strategy, Official Community Plans, and Zoning) only to areas outside of the floodplain, or where existing flood hazard management infrastructure is considered in line with current guidelines.*

2. *Establish policies, regulations and/or development permit guidelines to discourage development that cannot provide sustainable flood hazard management services.*
3. *Establish provisions in FVRD bylaws and/or development approvals to:*
    a. *Ensure appropriate financial security provisions and operational commitments are in place; and*
    b. *Ensure appropriate access and land tenure are in place.*

1.2 EXPANDING SERVICE DELIVERY

The FVRD will extend or expand FVRD flood hazard management services at the request of property owners, and only if doing so is shown to be socially, economically, and environmentally sustainable. As with the establishment of new services, the FVRD will require completion of a financial viability plan prior to extending or expanding existing services.

Possible Implementation Steps:

1. *Require a comprehensive assessment of the short and long-term financial, social, and environmental impacts prior to deciding whether to expand existing flood hazard management systems, or develop new infrastructure.*

1.3 LEVELS OF SERVICE

The FVRD will maintain the base level of service as defined in Table 1 for all FVRD-owned flood hazard management infrastructure. Expanded levels of service will be considered based on request and consultation with participating service area property owners on a service-by-service basis, in conjunction with policy 1.2. The FVRD will also encourage, and where possible require, any new flood infrastructure to provide the base level of service defined in **Table 1**, and to provide levels of service above the base level in consultation with service area property owners on a service-by-service basis.

Table 1: Level of Service Outlines

Existing/Proposed Infrastructure	Base[1] Levels of Service	Expanded Levels of Service
Existing	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 (e.g. Subdivision and Development Servicing Bylaw for stormwater management, and Provincial standards for dikes).
Proposed	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 (e.g. Subdivision and Development Servicing Bylaw for stormwater management, and Provincial standards for dikes).

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.

1.5 QUALITY DESIGN AND CONSTRUCTION

The FVRD will encourage all owners and operators of existing major overland flow infrastructure to meet at least the base level of service identified in Table 1 as infrastructure is replaced or upgraded, and to consider climate change adaptation models, targeting the expanded level of service identified in Table 1. The FVRD will encourage all owners of stormwater management infrastructure to meet the design standards established in the Subdivision and Development Servicing Bylaw as infrastructure is replaced or upgraded, and to consider climate change adaptation models, targeting the expanded level of service identified in Table 1.

Possible Implementation Steps:

1. *Ensure the Subdivision and Development Servicing Bylaw meets modern day standards for stormwater management.*
2. *As needed, review and update the Subdivision and Development Servicing Bylaw to include current standards for stormwater management infrastructure.*

[1] Base level of service is defined as the level of service at the time of construction based on the relevant regulations, standards, and design guidelines, at that time.

3. *When projects are referred to the FVRD, ensure comments are provided to the appropriate authorities/agencies.*

1.6 OPERATION AND MAINTENANCE

The FVRD will operate and maintain FVRD-owned flood hazard management infrastructure to the desired level of service. The FVRD will also encourage, and where possible require, owners of private stormwater management systems to operate and maintain the infrastructure to the base level of service defined in Policy 1.3 (Table 1).

Possible Implementation Steps:

1. *Engage in ongoing dialogue with the Province of BC for orphaned flood hazard management infrastructure where there are public or technical concerns and seek Provincial investment to address concerns.*
2. *Explore potential of partnerships to enhance the operation and maintenance of existing systems.*
3. *Conduct an assessment of FVRD-owned systems where operation and maintenance issues exist.*
4. *Update maintenance schedules for all FVRD-owned flood hazard management infrastructure.*

1.7 SYSTEM RELIABILITY

The FVRD will provide all FVRD-owned flood hazard management infrastructure with the base level of service defined in Table 1. The FVRD will encourage, and where possible require, private stormwater management systems to also provide the base level of system reliability.

Possible Implementation Steps:

1. *Complete periodic risk assessments and maintain records of all inspections.*

1.8 COORDINATING LAND-USE PLANNING

The FVRD will coordinate its electoral area land-use planning regulations and policies (e.g., Official Community Plans, zoning regulations and building regulations) with FVRD electoral area flood hazard management service delivery objectives, discourage the creation of unsustainable infrastructure, and plan for flood hazard management services in the context of the local community as appropriate.

Possible Implementation Steps:

1. *In addition to the FVRD's Floodplain Management Bylaw provisions, consider creating Development Permit Area (DPA) guidelines outside of the Fraser River floodplain for neighbourhood and building design where the floodplain management is considered inadequate (e.g. in relation to alluvial fans, mountain stream flood hazard). Consider guidelines for neighbourhood and building design that is flood resilient in areas where development is permitted.*

2. *Ensure that land-use plans are developed in consideration of floodplain mapping and impacts of climate change.*

1.9 KEEPING POLICIES AND PRACTICES UP TO DATE

The FVRD will review its policies and practices as required to reflect on the approach to flood hazard management service provision. The Policy will be reviewed against the current applicable provincial/federal legislation and policies, environmental conditions, economic conditions, public expectations, and land uses.

Possible Implementation Steps:

1. *Review and if necessary, update the Subdivision and Development Servicing Bylaw and Floodplain Management Bylaw as required.*

2. *As FVRD electoral area Official Community Plans are updated, review policies to ensure alignment with this Flood Hazard Management Service Provision Policy.*

1.10 HYDROMETRIC MONITORING

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

Possible Implementation Steps:

1. *The FVRD will advocate to the Province to carry out strategic hydrometric monitoring to enhance the capabilities to predict future flooding events.*

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.

Table 2: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

2.1 DECISION-MAKING – CONSISTENCY, TRANSPARENCY AND INTEGRATION

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.

Possible Implementation Steps:

1. *Utilize the Priority Setting Framework contained in Part 4 of this report.*
2. *Establish templates for Board reports to highlight impacts of each decision.*

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.

Possible Implementation Steps

1. *Consider establishing resources to support pro-active communications on FVRD flood hazard management services.*
2. *Establish communications materials with flood hazard management service provision and governance information to be distributed to all residents, and business owners within the floodplain.*

PART 3: COST RECOVERY

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

OBJECTIVE: To ensure the financial sustainability of FVRD flood hazard management service provision.

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 for current and future generations.

Possible Implementation Steps:

1. *Establish a comprehensive asset management program to proactively plan and save for long-term capital replacement. The amount secured for long-term capital replacement will be based on an up-to-date condition assessment for the infrastructure.*
2. *Seek grants for capital projects and ensure that service area will be financially viable without grants once infrastructure is built (e.g. for operations & maintenance or replacement).*
3. *Establish flood hazard management and stormwater management utility rates based on full cost recovery. Rates will fully cover costs for:*
    a. *O&M;*
    b. *Rate-funded capital; and*
    c. *Operating reserves.*

3.2 POOLING COSTS AND REVENUES

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. Given the disparate current geographies with flood hazard management infrastructure services, the focus of any broader service areas would be regional flood hazard management planning, administration, and operations, as opposed to construction and maintenance of new or existing infrastructure or capital replacement.

Possible Implementation Steps:

1. *Identify costs/revenues that could be pooled across systems;*
2. *Pursue opportunities to realize meaningful economies of scope and scale; and,*
3. *Possibly establish a new Electoral Area service area(s) as appropriate.*

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 associated with FVRD flood hazard management service provision. This means that the FVRD will extend its service area boundaries 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.

The Priority Setting Framework presented here outlines the FVRD's broad priorities and provides general guidance for how candidate projects could be prioritized. As new projects emerge this framework can support discussions around securing grants and contemplating timing relative to existing priorities. The Priority Setting Framework is just that, a framework – it is not a prescriptive black box. Rather, the Priority Setting Framework relies substantially on discussions and deliberations among FVRD staff and the Board. The Framework will help ensure that these discussions are thorough and consistent.

STEP 1: COMPLETE PROJECT SUMMARIES

Project summaries should be completed for each project considered for funding. Each summary should include the following information:

- Description;
- Driver (the main reason why the project is being considered);
- Cost; and
- Cost per property benefitting from the service.

STEP 2: COMPARE WITH ESTABLISHED PRIORITIES

The next step is to determine which projects fulfill which priorities based on each project's main driver. These priorities are (in order of priority):

1. If ordered by the Province to undertake mitigation efforts, accept ownership, or implement new statutory requirements.[2]
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

[2] The BC *Community Charter* states that the Province must not assign responsibilities to local government without the resources required to fulfill the responsibilities. As a result, the FVRD will require the provision of resources from the Province necessary to fulfill the newly assigned responsibilities, as outlined in Section 5.3 below.

STEP 3: CONSIDER COST PER LOT BENEFITING

Where priority levels are not clear in Step 2, the FVRD should consider the cost per lot to finalize its project rankings. For instance, a project that falls within Priority 3 may benefit only 10 lots, whereas a project falling under Priority 4 may benefit 20 lots for the same cost. In this case, the FVRD will have to judge whether the Priority 3 project brings a large enough benefit to those 10 lots to outweigh the benefits brought to the 20 lots with the Priority 4 project.

STEP: 4 EVALUATION MATRIX

Once priorities have been established, there may be a need to evaluate options to address identified issues. The matrix on the following page can be used for this purpose.

In most cases, there are multiple ways to approach a given issue with flood hazard management infrastructure. If a system requires upgrades or repairs to increase or maintain the level of service there may be more than one candidate solution. To choose the best solution, a comprehensive evaluation of each option is required. Such an evaluation will ensure that options are compared against one another based on a wide range of evaluation criteria.

The evaluation matrix provided below, summarizes the overall social, environmental, and financial costs and benefits associated with fictitious project options. While the basic elements of this evaluation matrix should be applied to all projects, the matrix should be expanded to include project-specific criteria where necessary.

The scoring system for the evaluation matrix is broken down as follows:

- 0 = Base Case (where “Base Case” is typically the status quo)
- +1 = Limited Benefit from Base Case
- +2 = Significant Benefit from Base Case
- -1 = Limited Cost from Base Case
- -2 = Significant Cost from Base Case

The purpose of this evaluation matrix is to ensure that a broad range of impacts have been considered for each option. This type of evaluation matrix should be used to inform discussions and deliberations on which options to choose – the numeric evaluations alone should not prescribe the chosen option.

Table 3: Sample Evaluation Matrix

Criteria	*Base Case*	*Option 1*	*Option 2*
Social Cost/Benefit			
a. Infrastructure reliability (new infrastructure)	0	1	0
b. Improvement to public health	0	0	0
c. Potential to expand service area	0	0	0
d. Timeframe for implementation	0	-1	-1
e. Public inconvenience during construction	0	0	0
Subtotal:	***0***	***0***	***-1***

Environmental Cost/Benefit			
a. Lower potential impacts on water resources (construction and O&M)	0	1	0
b. Lower potential impacts on sensitive habitat	0	1	1
Subtotal:	***0***	***2***	***1***

Financial Cost/Benefit			
a. Estimated capital cost			
Component 1	0	0	0
Component 2, etc.	0	-1	-2
b. Estimated annual operation and management costs	0	-1	-1
c. Operator safety concerns	0	1	-1
d. Ability to meet budget	0	0	0
Subtotal:	***0***	***1***	***-3***

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 additional flood hazard management responsibilities.

The FVRD does not proactively seek to own additional flood hazard management infrastructure. However, in some cases acquisition is ordered by senior levels of government. In other cases, the FVRD will consider requests to have the FVRD take on ownership of infrastructure in accordance with policies the policies herein.

Examples of situations where the FVRD will consider acquisition include:

- orphaned infrastructure providing a flood management benefit to residents/properties within an electoral area
- newly developed infrastructure intended to be turned over to the FVRD through the development approvals process
- infrastructure actively managed by others (e.g. improvement districts), which would benefit from FVRD ownership (e.g. for access to senior government grants, service area establishment and proactive maintenance practices)

5.1 INITIATING THE ACQUISITION OF FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

Initiation of flood hazard management infrastructure acquisition will come primarily from third parties. The FVRD Board may entertain requests to assume ownership of existing or newly developed flood hazard management infrastructure from:

- The Board of an Improvement District that wishes to transfer ownership of existing infrastructure;
- The Province for acquisition of orphaned infrastructure;
- Beneficiaries/users of flood hazard management infrastructure;
- Owners of flood hazard management infrastructure, including developers, may seek acquisition by the FVRD if the Electoral Area Director finds sufficient local support, often demonstrated through an informal petition by area residents.

5.2 CAPACITY TO ACQUIRE FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

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

1. Flood hazard management infrastructure owned by the FVRD at that time meets the base level of service as described in Policy 1.3; and,

2. Infrastructure assessments have been completed and corresponding financial plans are in place to upgrade any non-compliant FVRD infrastructure to meet the base level of service.

5.3 FINANCIAL VIABILITY OF FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

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

If the FVRD is requested to assume responsibility for orphan infrastructure the FVRD should consider legal protection from liability and request Provincial funding to upgrade the infrastructure to current standards.

If ordered to undertake mitigation efforts, accept ownership, or implement new statutory requirements, the FVRD will require the provision of resources from the Province necessary to fulfill the newly assigned responsibilities, in recognition of the principle outlined in the *Community Charter* that the Province must not assign responsibilities to local government without the resources required to fulfill the responsibilities.

5.4 PUBLIC ASSENT PROCESS FOR FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

The FVRD will assume ownership of an existing or newly constructed flood hazard management infrastructure once a local service area establishment bylaw has been adopted by the FVRD Board of Directors.

Where capital improvements are required, the FVRD will submit an application for a capital grant (if a suitable grant program is in place) and will not proceed with the electoral assent process or the loan authorization bylaw until it is known whether the grant has been secured unless the residents are willing to proceed on the basis of receiving no grants.

If borrowing is required, the FVRD will advance the loan authorization bylaw (in the amount of the total improvements less committed grants) either at the same time as advancing a local area establishment bylaw or after a local service area has been adopted by the FVRD Board of Directors.

5.5 COMPREHENSIVE ASSESSMENT

The FVRD will not acquire a flood hazard management infrastructure until a comprehensive assessment has been carried out by qualified professionals consistent with the requirements established by the FVRD.

Upon request for acquisition of a flood hazard management service, FVRD staff may request a feasibility study from the infrastructure owner (e.g. improvement district) or Province (in the case of orphaned infrastructure), or alternatively request access to funding for a feasibility study from the FVRD Board. If approved, these funds will be used to engage a qualified professional to examine the history, legal status and condition of the flood hazard management infrastructure. This assessment should outline the performance of the system in comparison to the service levels outlined in Policy 1.3, the design standards in the Subdivision and Development Servicing Bylaw and/or Provincial standards and legislation as appropriate. If the system is ultimately taken over by the FVRD and a feasibility study has been funded by the FVRD, this amount is to be repaid by the new function in its first fiscal year.

5.6 STANDARDS FOR PROPOSED NEW FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

All proposed flood hazard management infrastructure (including those to be acquired by the FVRD, built within a bare land strata) must be designed and constructed to meet the requirements of the FVRD's Subdivision and Development Servicing Bylaw or other applicable provincial standards (ex. Dike Maintenance Act) as a condition of acquisition as per policy 1.3 and 1.5.

5.7 PAYMENT FOR FLOOD HAZARD MANAGEMENT INFRASTRUCTURE

It is the policy of the FVRD to not pay more than a consideration of $10.00 for the acquisition of any flood hazard management system.

5.8 TRANSFER OF ALL FINANCIAL ASSETS, RIGHTS-OF-WAY, EASEMENTS, APPROVALS AND PERMITS AT CONVERSION

The transfer of flood hazard management infrastructure to FVRD ownership will be conditional on the transfer to the FVRD of all of the financial assets related to the system including all pertinent reserve and trust funds, bonds or other securities, as well as any pre-servicing or other prepaid commitments. Rights-of-way, easements, licenses and other relevant permits that are held for the infrastructure must also be transferred to the FVRD.

5.9 TRANSFER OF FLOOD HAZARD MANAGEMENT INFRASTRUCTURE AND LEGAL RISK

The FVRD will not acquire or assume responsibility for flood hazard management infrastructure if the FVRD determines there is undue legal risk associated with doing so.

5.10 TRANSFER OF FLOOD HAZARD MANAGEMENT INFRASTRUCTURE WITHOUT VALID APPROVALS/PERMITS

The FVRD will not acquire or assume responsibility for flood hazard management infrastructure if valid approvals and required permits for the construction or operation of the system have not been obtained. All approvals and permits must be in place.

5.11 CONSTRUCTED WORKS PROTECTED BY RIGHTS-OF-WAY, EASEMENTS, LEASES OR FEE SIMPLE OWNERSHIP

The FVRD will not assume ownership or responsibility for flood hazard management infrastructure where dikes, debris basins, culverts, stormwater mains, major facilities or other constructed works and their foot and equipment access locations are not located within registered rights-of-way or easements held by the owner of the system or within legal parcels held by the owner.

5.12 EXISTING DEBT AND RESERVES

An infrastructure's existing debt and reserves will remain with that infrastructure and will not be pooled with other infrastructure.

5.13 COST OF CONVERSIONS

Unless otherwise directed by the Board, the FVRD will request funding from the infrastructure owner or the Province (e.g. for orphaned infrastructure) to cover the cost of all studies to assess the feasibility of converting ownership of flood hazard management infrastructure from an improvement district, private owner, strata or any other governance model to the FVRD.

5.14 TANGIBLE CAPITAL ASSETS

Owners must provide information on tangible capital assets in a form acceptable to the FVRD for all new flood hazard management infrastructure they construct/install. This information will be provided to the FVRD as a condition of acquisition at no cost to the FVRD.

For existing flood hazard management infrastructure, the cost of assessing the system's tangible capital assets will be borne by the new function.

5.15 SEED FUND FOR LONG-TERM CAPITAL REPLACEMENT

As a condition of acquisition of infrastructure or systems, the FVRD will require the owner to provide 10% of the value of the infrastructure's tangible capital assets to the FVRD or $50,000 (whichever is greater). This amount will be deposited into a reserve fund for long-term capital replacement. See Policy 5.3 regarding financial feasibility of flood hazard management infrastructure.

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.

6.1 INDIGENOUS RELATIONSHIP BUILDING

As confirmed in the 2023-2026 FVRD Strategic Plan, the FVRD is committed to building relationships and working towards advancing reconciliation with Indigenous Peoples. 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. The many Indigenous communities in the region each have their own history, traditions, and culture. Their deep connection to this land is recognized and protected under Section 35 of the Constitution Act. The FVRD is dedicated to building a strong and resilient region that benefits everyone. 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.

Possible Implementation Steps:

- *Continue relationship-building and working towards protocol agreements with Indigenous communities.*
- *Seek Indigenous Traditional Knowledge when developing plans and strategies*
- *Explore potential collaboration opportunities such as joint efforts on hydrogeographic data collection and monitoring (or whatever technical terminology makes the most sense).*
- *Use the principles of free, prior, and informed consent when developing flood hazard management strategies by using engaging early and often.*
- *Refer flood hazard management matters to Indigenous communities for review and input.*
- *Continue to explore future service delivery partnership opportunities.*

6.2 IMPROVEMENT DISTRICT RELATIONSHIPS

The FVRD will continue building relationships and continue to 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 directly or indirectly.

6.3 PROVINCIAL AND FEDERAL RELATIONSHIPS

The FVRD may seek opportunities to collaborate with provincial and federal entities to enhance flood hazard management services within the watershed. The FVRD will leverage relationships to explore jointly beneficial projects and create partnerships to mitigate flood risks and safeguard residents and infrastructure.

6.4 MULTI-JURISDICTIONAL SERVICE DELIVERY

The FVRD may seek opportunities to form multi-jurisdictional partnerships to facilitate sustainable and effective delivery of flood hazard management infrastructure and services within a watershed. The FVRD will leverage relationships throughout the watershed to encourage joint efforts for flood hazard management delivery where is reasonable. This is to include both financial, technical, and historical input and information.