Fraser Valley Regional District

STAFF REPORT

To: Electoral Area Services Committee **Date:** 2025-02-13

From: Tareq Islam, Director of Engineering and Utilities

Subject: Electoral Area Flood Infrastructure Policy Update and Gap Analysis

Reviewed by: Graham Daneluz, Director of Planning, Development & Emergency Management
Kelly Lownsbrough, Director of Corporate Services & CFO
Jennifer Kinneman, Chief Administrative Officer

RECOMMENDATION

This report is being brought forward for the Board's information and there is no staff recommendation.

BACKGROUND

In 2023, the Fraser Valley Regional District (FVRD) secured $216,000 in funding through The Community Emergency Preparedness Fund (CEPF) for a Flood Protection Gap Assessment and Infrastructure Policy Framework. This grant, provided by the Province of BC and managed by the Union of British Columbia Municipalities (UBCM), supports programs in Disaster Risk Reduction-Climate Adaptation (DRR-CA), Emergency Operations Centres & Training, and Emergency Support Services. The framework aims to direct the management of flood hazard services across Electoral Areas, with an emphasis on prioritizing infrastructure enhancements and projects. In November 2023, FVRD launched a Flood Infrastructure Policy and Gap Analysis to create a thorough flood hazard management policy framework. For this initiative, FVRD engaged Urban Systems Ltd. (USL), which had previously developed FVRD's Electoral Area Sustainable Service Provision for Water Systems in 2010, Sustainable Sanitary Sewer Service Provision in 2013, and an update of the Sewer Policies in 2023, all adopted by the FVRD Board.

DISCUSSION

Due to climate change, hazards such as flood and debris flows have increased significantly in recent years. Extreme weather conditions such as atmospheric rivers are increasingly causing various levels of flooding and debris flows in BC including in FVRD. The DRR-CA funding stream is intended to support and reduce risks from future disasters due to natural hazards such as floods and debris flow through the development and implementation of effective strategies to prepare, mitigate, and adapt to those risks.

This Electoral Area Flood Infrastructure Policy Update and Gap Analysis project included development of Electoral Area sustainable flood policies to guide service deliveries, cost recoveries, and governance. This project will also include effectively prioritizing recommended upgrades and initiatives related to FVRD owned flood and debris basin related infrastructure, development of risk mapping, risk assessments, risk planning, land use planning, community education related to climate risk.

Within the existing Flood Protection and Drainage Infrastructure Gap Analysis, seven existing infrastructure sites will be assessed following an updated historical and climate change hydrological assessment of the Electoral Area Lands. Using the updated assessment, the FVRD's desired outcomes and input from stakeholders, a gap assessment will be performed, followed by conceptual design and a framework for addressing identified gaps from a climate change perspective.

No Electoral Area wide approach to flood protection currently exists in the FVRD. A proactive planning approach for future scenarios is proposed to reduce risks from potential disasters related to climate change.

The proposed policies are attached with this report. The policies cover both existing and potential new services that include urban stormwater systems and infrastructure designed to prevent major flood events, like dikes and debris controls. It focuses on service delivery within a flood reduction and preparedness framework but does not cover emergency management during flood events, which is handled by a separate FVRD policy.

The broader provincial framework involves legislation and regulations managed by the Government of BC, which sets standards but does not directly manage diking infrastructure. Local governments must become authorized diking authorities to gain approval for constructing or upgrading dikes.

The FVRD's responsibilities within this framework include managing flood hazard infrastructure, establishing local area planning and regulatory frameworks, and handling emergency management in electoral areas. The policies aim to enhance coordination and improve flood management outcomes across multiple jurisdictions, particularly focusing on services that manage or mitigate flood risks.

Staff will return to EASC with recommended policies for approval at a later date.

COST

No cost to FVRD on this project.

CONCLUSION

Climate change has intensified natural hazards like floods and debris flows, particularly in British Columbia and the FVRD, exacerbated by extreme weather events such as atmospheric rivers. The Electoral Area Flood Infrastructure Policy and Gap Analysis project focuses on developing sustainable flood policies for the FVRD that govern service delivery, cost recovery, and enhance governance while prioritizing infrastructure upgrades and community risk education. No comprehensive area-wide approach to flood protection currently exists in the FVRD; hence, a proactive strategy is proposed to prepare for and reduce future climate-related disasters. The FVRD's role is to manage flood hazard infrastructure and emergency management within a regulatory framework that aligns with provincial standards, aiming to improve coordination and flood management across multiple jurisdictions.