



Committee of the Whole Report

For the Meeting of April 18, 2024

To: Committee of the Whole **Date:** April 5, 2024
From: William Doyle, Acting Director, Engineering & Public Works
Daniel Atkinson, Fire Chief, Fire Department
Subject: UBCM Disaster Risk Reduction – Climate Adaptation Grant Application

RECOMMENDATION

That Council:

1. Support the application of a grant including overall grant management through the Union of British Columbia Municipalities' (UBCM) Community Emergency Preparedness Fund (CEPF), Disaster Risk Reduction – Climate Adaptation stream for \$350,000 in funding to develop the Gorge Coastal Flood Adaptation Strategy and \$467,500 in funding for Cooling centre infrastructure (HVAC systems and passive cooling awnings for three Community Centres); and
2. Authorize the Chief Financial Officer to enter on behalf of the City of Victoria, into a shared cost agreement with UBCM on the terms acceptable to the Chief Financial Officer, the Director of Engineering and Public Works, and the Fire Chief in a form acceptable to the City Solicitor.

EXECUTIVE SUMMARY

The City of Victoria has an opportunity to apply for funding under the UBCM CEPF Disaster Risk Reduction-Climate Adaptation stream with partnering municipalities for the development of a Gorge Coastal Flood Adaptation Strategy as well as for cooling centre resources for three community centres. A Council resolution is required as part of the application.

The partnering municipalities in this grant application include the District of Saanich, the Town of View Royal and the Township of Esquimalt which will also be required to submit Council resolutions as part of the grant application. If the funding application is successful, the Capital Regional District (CRD) will also provide project support due to its regional scope. Indigenous communities will be contacted to determine their desired level of participation in the project; they include the Songhees, Esquimalt, Tsartlip, Tseycum, Tsawout and Pauquachin First Nations as well as the WSÁNEĆ Leadership Council.

The grant application includes different funding stream categories, which must be submitted under one application form. The Gorge Coastal Flood Adaptation Strategy fits under category 1: Foundational activities (risk mapping, risk assessments, planning) and the Cooling resources fit under category 3: Small scale structural activities. Climate team staff and Emergency Program staff have collaborated on the grant application, with the Climate team leading the Category 1

project and the Emergency Management Division leading the Category 3 project.

PURPOSE

The purpose of this report is to seek a Council resolution for staff to support a grant application to the UBCM CEPF, Disaster Risk Reduction – Climate Adaptation stream.

BACKGROUND

The UBCM CEPF is a suite of funding streams intended to support First Nations and local governments to reduce the risks associated with disasters and prepare for natural hazards in a changing climate. Funding is provided by the Province of British Columbia and is administered by UBCM. The Disaster Risk Reduction – Climate Adaptation stream provides funding divided into three categories; for this project, the City will apply for Category 1 foundational activities (risk mapping, risk assessments, planning) and category 3: small scale structural activities. This funding stream offers 100 per cent of eligible project costs. The City has been successful in previous applications to this grant for projects including the construction and installation of misting stations; computer simulated wave modelling to better understand the extent of flooding at the lot level due to tides, storm surge events and sea level rise; and a project that pilots best practices and new approaches for building equity into municipal climate adaptation planning and implementation.

Under the British Columbia Local Government Act, local governments are responsible for managing natural hazards through land use planning and regulations. The 2004 provincial Flood Hazard Area Land Use Management Guidelines provide direction for local governments to implement land use management plans and make subdivision approval decisions for flood hazard areas. Local governments must consider the Guidelines when creating bylaws under the Local Government Act. It is the responsibility of each municipality and electoral area to review, interpret and consider how to implement the Guidelines, and incorporate them into related local land use regulatory, policy and planning tools, including flood construction levels. Further, site-specific analysis is encouraged to support the development of land use planning, including flood construction levels, that consider the unique characteristics and topography of areas within the jurisdiction of local authorities.

Category 1: Gorge Coastal Flood Adaptation Strategy

The project area of the Gorge Waterway and Portage Inlet form a six-kilometer long, narrow arm of marine waters bordered by the municipalities of the City of Victoria, the District of Saanich, the Township of View Royal and the Township of Esquimalt (the Gorge). Despite the heavily developed shoreline, the Gorge supports a biologically diverse population of plants and animals including valued ecosystems such as eelgrass meadows and salt marshes. The area is part of the federally designated Victoria Harbour Migratory Bird Sanctuary and functions as a tidal estuary with several inflowing streams and rivers (Colquitz River, Craigflower Creek, Hospital Creek, Gorge Creek and Cecelia Creek) which include two salmon bearing streams. It is also home to an abundant population of Olympia oysters, a federally listed species of special concern.

Most coastal flooding that occurs in the Gorge today is due to a combination of storm surge events and wind during high tide. Based on previous studies, it is understood that sea level rise will exacerbate coastal flooding and worsen impacts in the future. The success of the City's shoreline protection and enhancement initiatives relies on sustained commitment and adaptive management, considerations for new and/or emerging risks, understanding climate projections and technological advancements, in addition to ongoing collaboration with bordering municipalities and the Capital Regional District. The City recognizes the need to prioritize shoreline adaptation and enhancement

along the Gorge through natural and engineered solutions of critical coastal infrastructure and to address concerns for aging and at risk structures and implement repairs to ensure their efficacy.

Category 3: Cooling Centre infrastructure

Under the Emergency Management Disaster Management Act (EDMA) local authorities must assess their risks including climate impacts, and create emergency preparedness, response, and recovery plans based on these risks. Staff are currently working on several initiatives to increase our City's emergency preparedness and climate readiness at the community level. One of these initiatives is the development of Resilience Hubs. Resilience Hubs are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. Hubs provide an opportunity to effectively work at the nexus of community resilience, emergency management, climate change mitigation, and social equity while providing opportunities for communities to become more self-determining, socially connected, and successful before, during, and after disruptions. Providing cooling resources to community centres to act as cooling centres is one initiative of the resilience hub program.

ISSUES & ANALYSIS

Category 1:

In 2021, the Capital Regional District, in collaboration with local municipalities, including the City of Victoria, developed the Regional Coastal Flood Inundation Mapping Project to better understand regional impacts from coastal storm flooding due to sea level rise and tsunamis. Over the course of the project, 222 distinct areas were analyzed for coastal storm inundation for various storm surge and sea level rise scenarios and developed coastal flood construction levels for the capital region. The Gorge was one of the sites selected for detailed inundation modelling due to its low-lying topography, potential susceptibility to coastal inundation and relatively high population density; the results indicated increasing vulnerability to coastal flooding as mean sea levels increase.

With sea level rise increasing the risk of flooding in the Gorge, the development of a coordinated Gorge Coastal Flood Adaptation Strategy will minimize risks and vulnerabilities in the project area by scoping and prioritizing coastal flood adaptation actions which can be undertaken by participating municipalities. The project will engage with stakeholder groups and individuals along the Gorge and the broader region to increase public awareness and understanding of flood risk related to sea level rise in the Capital Regional District, conduct a risk assessment to better understand the impacts of coastal flooding in the Gorge and build capacity to effectively respond to climate change impacts over time. By working closely with municipalities along the Gorge, the CRD and invested parties, the City of Victoria will strengthen these relationships, and ensure that effective and coordinated responses are in place to address concerns for coastal flooding.

Category 3:

A regional extreme heat vulnerability assessment was recently conducted and resulted in the Regional Extreme Heat Vulnerability Information Portal and Report that provide detailed heat risk and vulnerability information. Staff have analysed the report, data, and maps, and have identified priority areas for risk reduction. We consider both vulnerable populations and buildings along with the presence of urban heat islands, to strategically prioritise interventions and resources in areas most in need of attention. Based on the extreme heat events experienced in B.C. in 2021 and 2022, we know that emergency response personnel were at or over capacity in many areas, including Victoria. Understanding the dissemination level where there are vulnerable people and where there may be a shortage of emergency responders or a long distance for a response team (or the public)

to travel, helps us better plan for where emergency response resources are needed. Transportation to cooling centres was identified as an issue. By distributing cooling resources across all neighbourhoods in the City while also using our heat risk and vulnerability data, we are able to mitigate these risks. Staff have conducted engagement with service providers and businesses to identify the best locations for misting stations, water fountains, spray parks, and cooling centres. Through these assessments, planning, and engagement we have identified community centres as resilience hubs for residents during all types of emergencies, including extreme heat events. Having resilience hubs in each City neighbourhood ensures all residents have access to the resources required, develops community connections and resilience, and minimizes transportation challenges. The resilience hubs encourage individuals and communities to prepare together for all hazards, and therefore reduces the need for emergency responders. For example, with all community centres operating as cooling centres during extreme heat events, the need for additional City operated cooling centres is greatly minimized and unlikely. Cook Street Village Activity Centre, Vic-West Community Centre, and Fairfield Community Centre are the three City owned centres that do not currently have adequate cooling sources such as HVAC to act as efficient cooling centres. Engagement has been conducted with these centres and they are keen to collaborate and become resilience hubs but recognize the need for HVAC systems in order to be available as cooling centres.

OPTIONS & IMPACTS

Staff have identified two options for Council.

Option 1 (Recommended):

Support the UBCM CEPF grant application by providing a Council resolution to develop a Gorge Coastal Flood Adaptation Strategy with neighbouring municipalities and purchase and install HVAC and awnings in Cook Street Village Activity Centre, Fairfield Community Centre, and Vic-West Community Centre.

If successful, these two initiatives would be managed as two separate grants. For the Gorge Coast Flood Adaptation Strategy Initiative, the City will coordinate the joint regional grant for \$350,000, in partnership with the District of Saanich, the Township of View Royal and the Township of Esquimalt, and support from the CRD. Indigenous communities will be invited to participate in and contribute to the project through formal invitation. The City will be the primary applicant and will be responsible for applying for, receiving and managing the grant funding on the behalf of the partnering municipalities. For the cooling centre infrastructure initiative, the City will use the \$467,500 in funding to purchase and install cooling centre resources (HVAC and awnings) in three community centres, from the UBCM CEPF Disaster Risk Reduction – Climate Adaptation stream.

Option 2:

That Council declines the endorsement of the grant submission by not providing a Council resolution and withdraw the City's support for participating in the development of the Gorge Coastal Flood Adaptation Strategy and the purchase and installation of cooling resources (HVAC and awnings) in Cook Street Village Activity Centre, Fairfield Community Centre, and Vic-West Community Centre.

Accessibility Impact Statement

The development of the Gorge Coastal Flood Adaptation Strategy presents an opportunity to advance accessibility by incorporating inclusive design principles and considering the needs of

individuals with varying abilities throughout the planning process. Due to the requirement for both broad public and stakeholder engagement to develop the Strategy, the project team will provide alternative formats for the delivery of information, facilitate participation through accessible meetings and events, and actively seek input from diverse and equity deserving stakeholders.

The establishment of resilience hubs and ability for all City community centres to act as cooling centres during extreme heat events ensures accessibility of preparedness, response, and recovery resources to all residents of Victoria, and minimizes transportation challenges. Engagement will be conducted with service providers of equity denied populations to ensure resilience hubs and cooling centres are easily accessible to all and have the required resources to support unique needs.

2023 – 2026 Strategic Plan

The Category 1 project aligns with the Climate Action and Environmental Stewardship Council priority of the City of Victoria's Strategic Plan, namely to "innovate to lead bold climate adaptation and mitigation strategies, and actions". Additionally, it will contribute to the Strategic Plan values to "embrace urban evolution, innovation and adaptation" and "partner with other governments to benefit Victorians".

The Category 3 project aligns with the 2023-2026 Strategic plan specifically to Accelerate investment in community centres and seniors' centres as well as the objectives under Community well-being and safety in relation to all hazards.

Impacts to Financial Plan

Category 1: If the grant application is successful, the grant will cover 100% of the costs to hire an external consultant to develop the Gorge Coastal Flood Adaptation Strategy, and the City of Victoria will contribute in-kind time to the project totalling approximately \$30,000. Staff from the District of Saanich, the Township of Esquimalt and the Township of View Royal will also be contributing in-kind time to the project.

Category 3: If the grant application is successful, the grant will cover 100% of the costs to purchase and install HVAC and passive cooling measures (awnings) in three identified community centres and the City of Victoria will contribute in-kind time through emergency program, climate team, and facilities staff to the project totalling approximately \$30,000.

Official Community Plan Consistency Statement

This report supports several policy directions in Chapters 10 (Environment), 12 (Climate Change and Energy), and 18 (Emergency Management) of the Official Community Plan including:

Section 10 Environment

- 10.10 Work in partnership with the Capital Regional District, the Township of Esquimalt, the Town of View Royal, the District of Saanich and other partners to increase coordination in the protection and restoration of Victoria Harbour and the Gorge Waterway.
- 10.11 Work with partners to assess the projected impacts of sea level rise on marine and shoreline ecosystems and respond to changing conditions through management strategies and the development and regular review and update of climate related plans, policies and initiatives.

Section 12 Climate Change and Energy

- 12.3.4 Identify and refine policies and actions for climate change adaptation that strengthen community resilience to the projected impacts of climate change based on local risk and vulnerability assessments.
- 12.3.6 Maintain a relevant understanding of local climate change impacts, including how diverse sectors and populations are affected.
- 12.6 Consider climate change and energy resilience in infrastructure asset management with respect to maintenance, repair and replacement over time.

Section 18 Emergency Management

The City is committed to being a disaster-resilient community. This project aligns with the 6 broad objectives of the OCP of:

- 18 (a) That the planning and delivery of emergency management is coordinated between governments, public agencies, service providers and community organizations.
- 18 (b) That disaster mitigation reduces the risk of major hazards, including a damaging earthquake event, to property owned by senior governments, public agencies, utility providers, community organizations, businesses and individuals.
- 18 (c) That the City provides leadership in prevention and mitigation by achieving high seismic standards in new facilities and in upgrades to existing civic buildings, structures, and infrastructure.
- 18 (d) That emergency preparedness is widespread in workplaces and households across the community.
- 18 (e) That emergency response is coordinated and delivered efficiently and effectively.
- 18 (f) That the City is prepared for the short to long-term recovery from disaster events.

CONCLUSIONS

Staff are seeking a Council resolution to support a grant application for \$350,000 in funding to develop a Gorge Coastal Flood Adaptation Strategy and \$467,500 in funding to purchase and install cooling centre resources (HVAC and awnings) in three community centres, from the UBCM CEPF Disaster Risk Reduction – Climate Adaptation stream.

The identification and prioritization of recommended adaptation actions developed as part of the Gorge Coastal Flood Adaptation Strategy has the potential to significantly reduce impacts resulting from sea level rise in the Gorge Waterway and Portage Inlet. Working closely with neighbouring municipalities and Indigenous communities enables the City of Victoria to strengthen our relationships and the resilience of our shared coastal areas.

The installation of HVAC and passive cooling measures in the three community centres that do not currently have sufficient cooling means further prepares the City and all its residents for extreme heat events and aligns with our holistic resilience hubs program.

Respectfully submitted,

Kristie Signer
Climate Adaptation Specialist

William Doyle
Acting Director, Engineering & Public Works

Tanya Seal-Jones
Emergency Program Coordinator

Daniel Atkinson
Fire Chief

Report accepted and recommended by the City Manager.