



REPORT

Report Date: February 4, 2021
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Meeting Date: February 23, 2021
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TO: Vancouver City Council

FROM: General Manager of Finance, Risk and Supply Chain Management in consultation with the General Manager of Engineering Services

SUBJECT: Funding Application to Union of BC Municipalities Community Emergency Preparedness Fund – Southlands Tide Gates Replacement Program

RECOMMENDATION

THAT Council endorse a funding application to the Union of BC Municipalities Community Emergency Preparedness Fund –Structural Flood Mitigation stream for \$750,000 toward the Southlands Tide Gates Replacement program.

REPORT SUMMARY

This report seeks Council's approval of the submission of a funding application for the Southlands Tide Gates Replacement program to the Structural Flood Mitigation stream of the Community Emergency Preparedness Fund. Funding for the Community Emergency Preparedness Fund is provided by the Province of BC and is administered by Union of BC Municipalities (UBCM).

The City's recalibrated 2019-2022 Capital Plan funding strategy identifies securing of senior government contributions as a funding source to achieve a number of Council priorities. This funding application supports climate change adaptation through implementation of flood mitigation measures.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

July 2012: City of Vancouver approved the Climate Change Adaptation Strategy, recommending that staff undertake a suite of priority actions, including conducting a Coastal Flood Risk

Assessment program to determine the potential impacts of sea level rise on the coastline of the City of Vancouver.

May 2014: The results of the first phase of the Coastal Flood Risk Assessment were presented to Council, along with information about proposed Phases II and III. Council approved raising the flood construction level from 3.5 m to 4.6 m within an expanded flood plain area to improve flood resilience of new buildings. The Vancouver Building By-law was amended to reflect these changes.

November 2016: Staff presented the results of the second phase of the Coastal Flood Risk Assessment to Council, which including a high-level evaluation of response options for each of the flood-vulnerable areas in the City.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager, the General Manager of Finance, Risk and Supply Chain Management and the General Manager of Engineering Services recommend approval of the report.

REPORT

Background/Context

The Community Emergency Preparedness Fund (CEPF) is a suite of funding programs intended to enhance the resiliency of local governments, First Nations and communities in responding to emergencies. Funding is provided by the Province of BC and is administered by Union of BC Municipalities (UBCM).

The Structural Flood Mitigation funding stream provides up to 100% of the cost of eligible activities to a maximum of \$750,000.

The intent of this funding stream is to support eligible applicants to prevent, eliminate or reduce the impacts of hazards through construction of structural flood mitigation projects.

The application deadline was November 20, 2020. An application was submitted for the City's Southlands Tide Gates Replacement program. A resolution of Council is required in support of the funding. Resolutions can be submitted after the application submission deadline and before the UBCM award (if the application is successful) can be made final.

Strategic Analysis

There is a limit of one application per municipality to the CEPF. City staff reviewed projects that meet the requirements of the Structural Flood Mitigation funding stream of the CEPF and concluded that the Southland Tide Gates Replacement program is suitable because this program will help prevent, eliminate or reduce the impacts of hazards through construction of structural flood mitigation projects.

In 2014, the City completed the Coastal Flood Risk Assessment (Phase 2). This report evaluated various flood mitigation approaches and identified key assets in the floodplain. In

Southlands, there are over 400 buildings (primarily residential), approximately 2,000 people and several recreational assets that may be impacted during a severe flood event. The report indicated that Southlands is at risk for significant flooding in the near future during a very rare flood event. However, a tide gate failure would render areas of Southlands vulnerable to flooding during much more common events.

In the City-wide Tide Gates Risk Assessment, the tide gates in the Southland Tide Gates Replacement program were categorized as infrastructure that has high to medium-high risk of failure as further elaborated below.

- Dunbar outfall has reached the end of its design life and the concrete headwall has areas of exposed rebar and weir-brackets. Preliminary inspections using Remote Operated Vehicles and sonar have revealed pipe abnormalities.
- Carrington tide gate is approaching end of its design life. In 2018, Carrington tide gate observed structural damage to one of its two hinges. The lifting chain had also snapped. Since then, a temporary repair has been made and the permanent tide gate is scheduled to be constructed in 2021.
- Blenheim tide gate is also approaching end of design life. The gate-lifting eye and chain have broken off. Due to significant corrosion, a piece at the bottom of the tide gate has come off with the eye and chain.

The implementation of the Southlands Tide Gates Replacement program will be led by the City's Engineering department. The City's PDS/Sustainability Group has been duly informed of this program, and has determined that this program will not conflict with the City's Coastal Adaptation planning work.

Financial Implications

The funding strategy in the recalibrated 2019-2022 Capital Plan identified securing of senior government contributions as a funding source to achieve a number of Council priorities. Consistent with that strategy, the City is seeking funding for up to \$750,000, the total estimated project costs, all of which are eligible costs as defined by the CEPF.

The Southlands Tide Gates Replacement program was contemplated in the recalibrated 2019-2022 Capital Plan. Upon successful outcome of CEPF funding application, staff will bring forward the required funding adjustments as part of the regular capital budget adjustment process.

CONCLUSION

The proposed Southlands Tide Gates Replacement program is a priority. As part of the City-wide Tide Gates Risk Assessment process, these tide gates were identified as being in the category of infrastructure that has high to medium-high risk of failure. Therefore, Council's support is sought for the City's application to the Community Emergency Preparedness Fund for funding the Southlands Tide Gates Replacement program as described in this report.

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