

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE/
PLANNING, TRANSPORTATION & PROTECTIVE SERVICES COMMITTEE
MEETING OF WEDNESDAY, JULY 15, 2020**

SUBJECT **Capital Region Coastal Flood Inundation Mapping Project Update**

ISSUE SUMMARY

To provide the results of the Capital Region Coastal Flood Inundation Mapping Project.

BACKGROUND

Under both the British Columbia Local Government Act and the Emergency Program Act, local governments have a responsibility to understand, plan for and manage coastal flooding risk.

In May 2019, working with and on behalf of local governments, the Capital Regional District (CRD) received a \$705,000 grant from the provincially and federally funded National Disaster Mitigation Program to undertake the Capital Region Coastal Flood Inundation Mapping Project. Associated Engineering, DHI and Westmar Advisors were retained to complete the work.

The purpose of this regional project is to help inform the CRD, its local governments, First Nations and other interested stakeholders of the risk of coastal flooding due to sea level rise and tsunamis, and the subsequent impacts as a result of inundation. The results of this project may be used to develop coastal flood hazard policy in the region's respective local governments, and inform emergency mitigation and evacuation plans. This project builds upon previous regional work, offering new and detailed information on coastal flood hazards related to both climate change and earthquake impacts.

Staff from the CRD Climate Action and Emergency Management programs have worked collaboratively on the project. Staff have also been working with an inter-municipal multidisciplinary project team with counterparts from seven local governments throughout the process. During the technical phase, CRD staff coordinated two workshops (over 30 staff in attendance per workshop) for representatives from all local governments in the region: one to refine the methodology and project outputs, and the other to review draft technical results. Updates have been provided throughout the project via existing inter-municipal staff committees (climate and emergency management) and directly with key stakeholders, as required.

A number of similar initiatives have been recently completed, are ongoing, or are in the procurement phase on Vancouver Island and the Lower Mainland. As such, throughout the project, staff have connected with other local governments to share learnings and resources.

Results

This project involved three main tasks with distinct methodologies, results of which are provided in three separate reports:

- Task 1: Digital Elevation Model Development Report
- Task 2: Sea Level Rise Modelling and Mapping Report
- Task 3: Tsunami Modelling and Mapping Report

Refer to Appendix A for an executive summary that provides information on the local government legislative context, and a summary of project methodologies and results. The reports in their entirety and frequently asked questions can be found at www.crd.bc.ca/coastalflood.

Next Steps

The findings in this project can be used for a variety of different purposes and will serve as an important data input for further regional emergency mitigation, planning and policy related initiatives. In addition, information found within these reports will be used to update emergency public education and build upon existing communications materials.

The reports, with an accompanying geographic information system, will be shared directly with CRD and local government staff, regional emergency management committees, and provincial and federal agencies, as a condition of the grant. Staff will continue to connect with coastal First Nations to provide the data and deliverables in a format that is usable to them.

CRD will continue to support existing inter-municipal and inter-agency committees to understand opportunities for further collaboration.

As technology and science improves, risk modelling related to both sea level rise and tsunamis will need to be continually conducted to update emergency preparedness, planning and response.

ALTERNATIVES

Alternative 1

The Planning, Transportation & Protective Services Committee recommends to the Capital Regional District Board:

That the results of the Capital Region Coastal Flood Inundation Mapping Project be received for information and inform future emergency planning efforts.

Alternative 2

That this report be referred back to staff for additional information.

CONCLUSION

Working with and on behalf of local governments, the CRD received a \$705,000 grant from the provincially and federally funded National Disaster Mitigation Program to undertake the Capital Region Coastal Flood Inundation Mapping Project. The purpose of this regional project is to help inform the CRD, its local governments, First Nations and other interested stakeholders of the risk of coastal flooding due to sea level rise and tsunamis, and support further planning, policy and communication efforts. The CRD will provide the results of the project to regional stakeholders and work with existing inter-municipal and inter-agency committees to understand opportunities for further collaboration.

RECOMMENDATION

The Planning, Transportation & Protective Services recommends to the Capital Regional District Board:

That the results of the Capital Region Coastal Flood Inundation Mapping Project be received for information and inform future emergency planning efforts.

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| Submitted by: | Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection |
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ATTACHMENT

Appendix A: Capital Region Coastal Flood Inundation Mapping Project – Executive Summary
(July 2020)