



Notes to Users

1. Please refer to the **Disclaimer** below.
2. Please review the associated project report before referring to the maps: Northwest Hydraulic Consultants Ltd. (NHC). 2021. 'Northwest Vancouver Island Tsunami Risk Assessment'. Report prepared for Strathcona Regional District. NHC project number 3005757.
3. Tsunami model results shown correspond to an earthquake with a magnitude of 9.0 from the Cascadia Subduction Zone. Please refer to the project report for additional information on tsunami source.
4. Initial water level for tsunami simulations consists of current-day Higher High Water Mean Tide (HHWMT) which at Kyuquot corresponds to an elevation of 1.4 m above the Canadian Geodetic Vertical Datum of 2013 (CGVD2013). HHWMT is defined as the average from all the higher high waters from 19 years of tidal predictions.
5. Spatially-varying land subsidence and uplift associated to the Cascadia Subduction Zone earthquake has been applied by adjusting the underlying digital elevation model as per Natural Resources Canada information.
6. Inundation maps show the tsunami inundation as predicted by the numerical model as well as the tsunami inundation level for emergency planning which includes a safety factor. This safety factor was applied by increasing by 50% the vertical distance of the maximum water surface above a reference plane corresponding to HHWMT.
7. The accuracy of the inundation extents is limited by the accuracy of the available bathymetric and topographic data as well as uncertainties associated to the numerical modelling approach used. Please refer to the project report for a discussion on model limitations.
8. The accuracy of inundation mapping is limited by the accuracy of the available orthoimagery basemap. Horizontal shifts between mapping and the basemap vary approximately from 5 m up to 20 m.
9. These maps provide results for one possible tsunami scenario with associated earthquake magnitude and subduction zone rupture mechanism. Tsunami hazards and associated effects can vary for different tsunami scenarios that may occur.
10. Inundation maps do not reflect all risks associated with a tsunami. Strong currents and debris mobilized from shorelines can be significant hazards.
11. Service roads and/or resource roads shown on these maps may be decommissioned and overgrown with vegetation inhibiting their use. The status of such roads should be reviewed as part of evacuation planning.

Data Sources and References

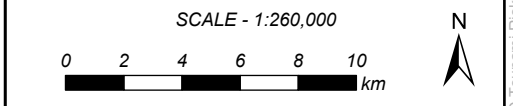
1. Topographic basemaps from Esri Canada, Natural Resources Canada, and Esri Canadian Community Maps contributors.
2. Imagery basemaps from Esri and Maxar.
3. First Nation administrative boundaries based on GeoBC data with adjustments by NHC and should be considered as approximate only.
4. Road locations and classification based on GeoBC Digital Roads Atlas with adjustments by NHC and should be considered approximate only.
5. Ferry route, municipal boundary, and regional district boundary data from GeoBC.

Disclaimer

This document has been prepared by **Northwest Hydraulic Consultants Ltd.** for the benefit of **Strathcona Regional District** for specific application to the **Northwest Vancouver Island Tsunami Risk Assessment**. The information and data contained herein represent **Northwest Hydraulic Consultants Ltd.** best professional judgment considering the knowledge and information available to **Northwest Hydraulic Consultants Ltd.** at the time of preparation and was prepared in accordance with generally accepted engineering and geoscience practices. These maps were prepared for the information and exclusive use of **Strathcona Regional District** its officers and employees. **Northwest Hydraulic Consultants Ltd.** denies any liability whatsoever for any injury, loss, or damage suffered to other parties who may have obtained access to this document and have used or relied upon this document or any of its contents.



- 1:5,000 INUNDATION MAP SHEET
- REGIONAL DISTRICT BOUNDARY
- FERRY ROUTE



Coordinate System: NAD 1983 CSRS UTM ZONE 9N
Units: METRES

Engineer	GIS	Reviewer
PSG	BLH/SWM/MSN	GFL
Job Number	Date	
3005757	23-SEP-2021	

**NORTHWEST VANCOUVER ISLAND
TSUNAMI RISK ASSESSMENT PROJECT**

**INUNDATION LEVEL FOR
EMERGENCY PLANNING
CASCADIA TSUNAMI
MAP INDEX & NOTES**

BLH/SWM/MSN, \\mainfile-van\Projects\Active\3005757\SRD Tsunami Risk Assessment\95_GIS\3005757_Maps_Inundation\3.aprx