

## Notes to Users

- Please refer to the **Disclaimer** below.
- Please review the associated project report before referring to the maps: Northwest Hydraulic Consultants Ltd. (NHC). 2022. 'Haida Gwaii Coastal Flood and Erosion Study - Planning for Sea Level Rise and Tsunami Hazards'. Report prepared for North Coast Regional District, Village of Masset, Village of Port Clements, and Village of Daajing Giids. NHC project number 3006196.
- These flood maps were developed to be an administrative tool that depicts the potential flood extent and minimum recommended flood construction level (FCL), and alone do not constitute a site-specific flood hazard assessment (FHA) in accordance with applicable provincial and professional guidelines. Any site-specific FHA with exposure to coastal flood hazards should be completed by suitably qualified professional engineers, experienced in coastal engineering. The FCL and estimated natural boundary shown in this map series relate to 1 m of relative sea-
- level rise. A map series for 2 m of relative sea-level rise is provided separately. The FCL is used to establish the elevation of the underside of a wooden floor system or top of a concrete slab for habitable buildings but does not relate to the crest level of a coastal protection
- structure. As per provincial flood hazard area land use management guidelines, habitable area is defined as any room or space within a building or structure that is or can be used for human occupancy, commercial sales, or storage of goods, possessions or equipment which would be subject to damage if flooded.
- The FCL including wave effects on these maps varies along shoreline reaches and applies within a distance from the shoreline varying from 10 m, at a minimum, to where the FCL intersects the local ground elevation, and up to a maximum distance of 30 m. Further inland the FCL does not include wave effects as modelling shows breaking wave energy dissipates in the shoreline FCL zone
- 7. For areas in Masset Inlet, the FCL was estimated based on a combined approach as described in provincial flood hazard area land use management guidelines. The wave effects component of the FCL was estimated by means of numerical modelling where empirical methods are not applicable. A freeboard of 0.3 m is included. For all other map areas, a Freeboard of 0.6 m is included.
- These maps and FCLs shown do not represent effects, flooding, and hazards due to tsunamis. The BC Land Act defines the Natural Boundary as the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetations, as well as in the nature of the soil itself. This study does not provide a present day assessment of the Natural Boundary. However, the estimated future elevation of the Natural Boundary is shown on the maps allowing for sea level rise and wave effects on the shoreline. This is shown for planning purposes and is only an approximation given the inherent uncertainties in future conditions.
- 10. The accuracy of the FCL and their associated extents are limited by the accuracy of the available bathymetric and topographic data, as well as uncertainties associated with the analysis. Please refer to the project report for a discussion on analysis and mapping limitations.
- 1. The accuracy of mapping is limited by the accuracy of the available orthoimagery basemap. Horizontal shifts between mapping and the basemap may vary approximately from 5 m up to 20 m
- 12. Flood plain extents have not been established on the ground by legal survey. The accuracy of the flood plain extents is limited by the accuracy of the topographic data and orthoimagery available.
- 13. These flood maps do not reflect all risks associated with coastal storms. Stronger than usual nearshore currents and floating debris can be hazards.
- 14. The maps depict flooding conditions at the time of surveys. Future changes to shorelines and upland area may affect the FCL as the geometry and elevations along shorelines change. The information on the maps should be regularly checked for accuracy (10 to 15 years intervals) or after any extreme flood occurrence.
- 15. The susceptibility to erosion shown on these maps is based on existing shoreline conditions.
- 16. Other areas for which coastal storm flood hazards were assessed include Village of Masset, Tlell, Sandspit, and Village of Daajing Giids. Associated maps can be found in separate map series.

## Data Sources and References

- Imagery basemaps from Esri and Maxar.
- 2. Ferry route and municipal boundary data from GeoBC.

## Disclaimer

This document has been prepared by Northwest Hydraulic Consultants Ltd. for the benefit of Village of Port Clements for specific application to the Haida Gwaii Coastal Flood and Erosion Hazard Study. 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 Village of Port Clements 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.











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	LIMIT OF TOPOGRAPHIC DATA
	MAJOR ELEVATION CONTOUR — AT 10 m INTERVAL
	MINOR ELEVATION CONTOUR AT 2 m INTERVAL
	COASTAL FCL ZONE (NO WAVE
	COASTAL FCL ZONE - 1 m SEA-
A CONTRACTOR	
	EROSION SUSCEPTIBILITY
	HIGH
	MEDIUM
	MUNICIPAL BOUNDARY
20	REFER TO INDEX MAP FOR IMPORTANT
	FCL = FLOOD CONSTRUCTION LEVEL.
	SCALE - 1:5,000
	0 50 100 150 200
	Coord.Sys.: NAD 1983 CSRS BC ENVIRONMENT ALBERS; Units: METRES; Vertical Datum: CGVD2013
	Engineer GIS Reviewer DAR
	Job Number Date 3006196 11-JAN-2023
	HAIDA GWAII COASTAL FLOOD AND EROSION HAZARD STUDY
A CONTRACTOR	VILLAGE OF PORT CLEMENTS
0	STORM FLOOD FOR 1 m
16	RELATIVE SEA-LEVEL RISE
	SHEET 3 OF 12











2

Job Number





Date

HAIDA GWAII COASTAL FLOOD AND EROSION HAZARD STUDY VILLAGE OF PORT CLEMENTS

STORM FLOOD FOR 1 m RELATIVE SEA-LEVEL RISE

3006196

11-JAN-2023











