

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). 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 Massett, Village of Port Clements, and Village of Daajing Giids. NHC project number 3006196.
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 performed to produce these maps consists of Higher High Water Mean Tide (HHWMT) with one metre of sea-level rise. HHWMT is defined as the average from all the higher high waters from 19 years of tidal predictions and varies from one location to another. Please refer to the project report for information on tide levels.
5. Information shown on maximum tsunami amplitude maps corresponds to model results of maximum water surface elevation above a reference plane corresponding to HHWMT. Over the ocean this information corresponds to the maximum tsunami amplitude, which is defined as the vertical distance of the tsunami wave crest above the reference plane. Overland this information corresponds to the maximum tsunami runup, which is defined as the vertical distance of the leading edge (most upland reach) of the tsunami flow above the reference plane.
6. No safety factor or freeboard was applied to the results shown on these maps. Any inundation visible on these maps correspond to the inundation as estimated by the numerical model without any adjustment and should be considered as indicative only. For inundation extents, refer to maps of tsunami inundation level for emergency planning to which a safety factor is applied.
7. The accuracy of the model results mapped 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 modelling and mapping limitations.
8. These maps provide results for one possible tsunami scenario with associated earthquake magnitude and rupture mechanism. Tsunami hazards and associated effects can vary for different tsunami scenarios that may occur.
9. The influence stream flow may have on the propagation of tsunamis up rivers and creeks was not included in the numerical model.

Data Sources and References

1. Topographic basemaps from Esri Canada, Natural Resources Canada, and Esri Canadian Community Maps contributors.
2. Ferry route and municipal boundary data from GeoBC.
3. Coastline and riverbanks from GeoBC 1:20,000 scale Freshwater Atlas data.

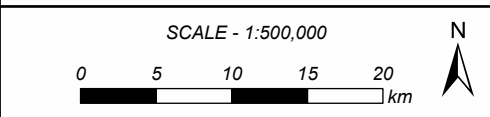
Disclaimer

This document has been prepared by **Northwest Hydraulic Consultants Ltd.** for the benefit of **North Coast Regional District, Village of Massett, Village of Port Clements, and Village of Daajing Giids** 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 **North Coast Regional District, Village of Massett, Village of Port Clements, and Village of Daajing Giids** 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.



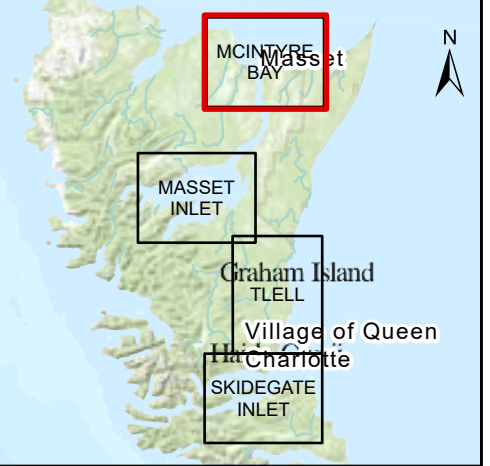
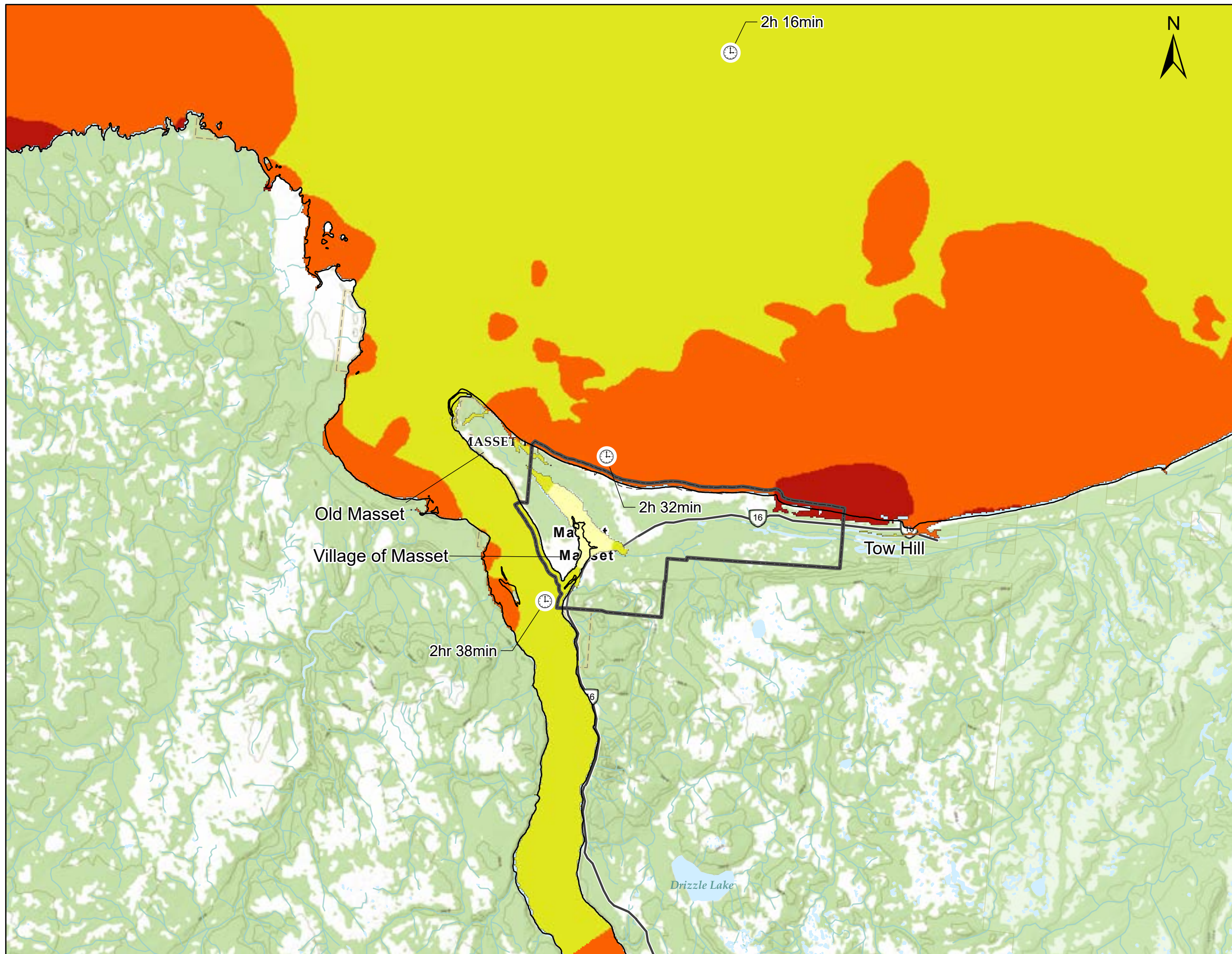
- REGIONAL (1:100,000) SCALE MAP SHEET
- FERRY ROUTE
- MUNICIPAL BOUNDARY



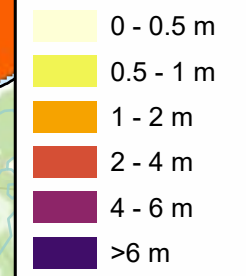
Coord.Sys.: NAD 1983 BC ENVIRONMENT ALBERS; Units: METRES					
Engineer	PSG	GIS	SWM	Reviewer	GFL
Job Number	3006196		Date	06-JAN-2023	

Haida Gwaii Coastal Flood and Erosion Hazard Study

MAXIMUM TSUNAMI AMPLITUDE CASCADIA TSUNAMI INDEX & NOTES

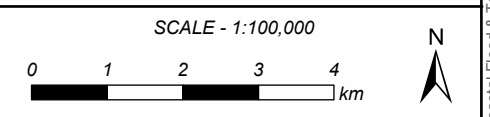


MAX TSUNAMI AMPLITUDE



- TSUNAMI ARRIVAL TIME
- APPROXIMATE COASTLINE
- MUNICIPAL BOUNDARY

1. REFER TO INDEX MAP FOR COMPLETE NOTES.
2. NO SAFETY FACTOR OR FREEBOARD WAS APPLIED TO THE RESULTS SHOWN. FOR INUNDATION EXTENTS, REFER TO MAPS OF TSUNAMI INUNDATION LEVEL FOR EMERGENCY PLANNING.



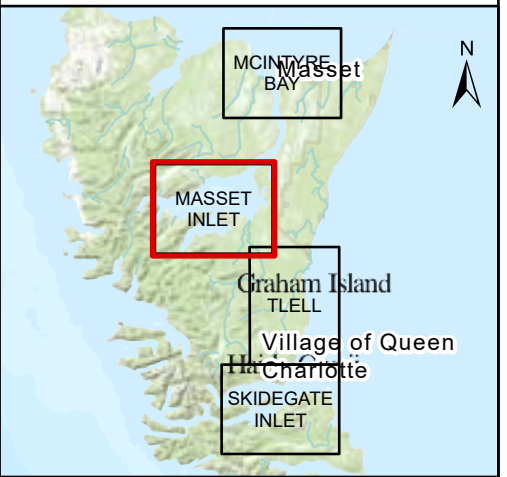
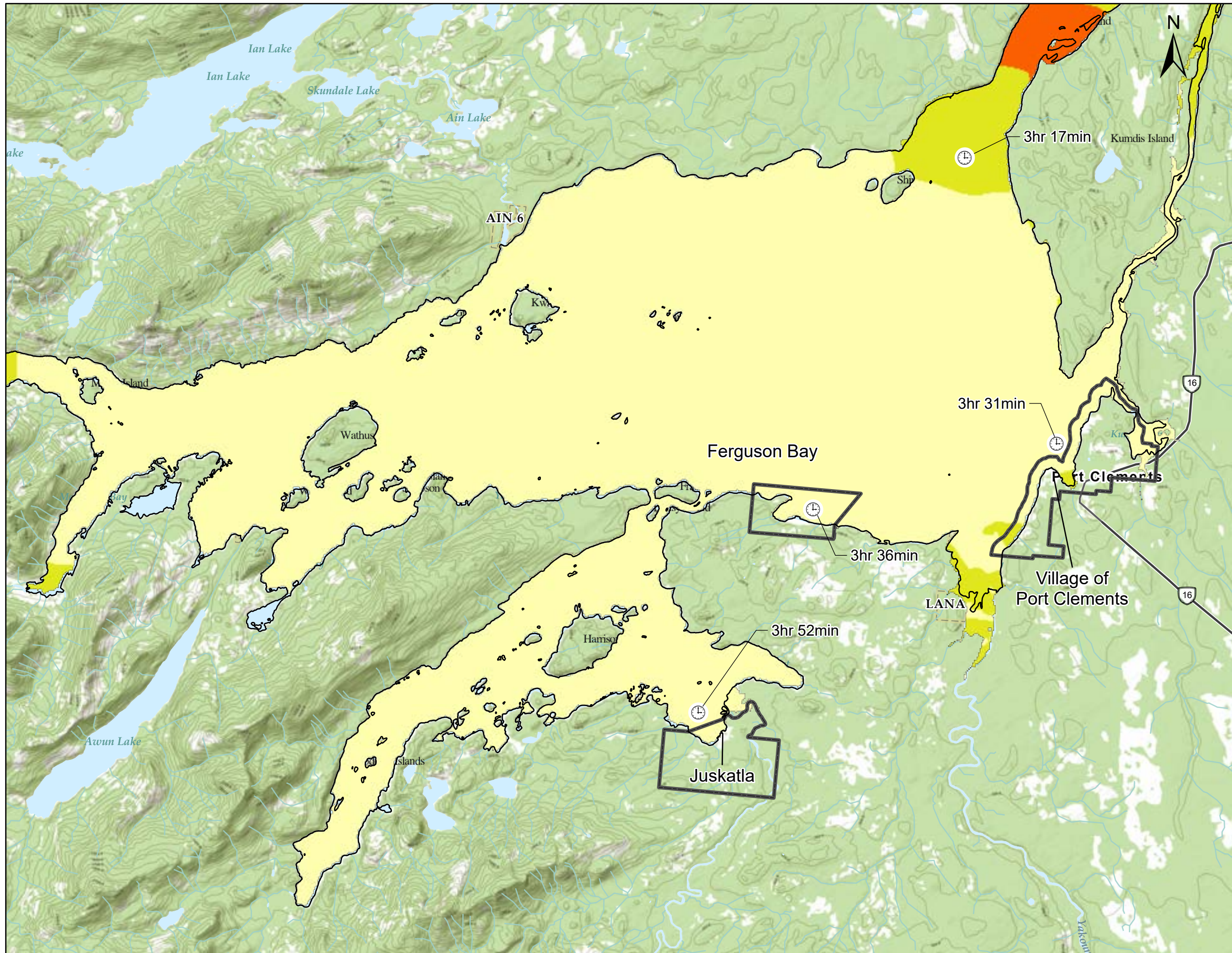
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Haida Gwaii Coastal Flood and Erosion Hazard Study

MCINTYRE BAY
MAXIMUM TSUNAMI AMPLITUDE
CASCADIA TSUNAMI

SWM: \\mainfile-van\Projects\Active\3006196 Haida Gwaii Coastal Flood & Tsunami\95 GIS\3006196 Maps_MapRegional2.aprx



MAX TSUNAMI AMPLITUDE

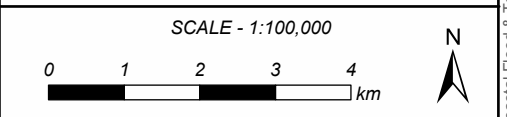
- 0 - 0.5 m
- 0.5 - 1 m
- 1 - 2 m
- 2 - 4 m
- 4 - 6 m
- >6 m

⌚ TSUNAMI ARRIVAL TIME

— APPROXIMATE COASTLINE

▭ MUNICIPAL BOUNDARY

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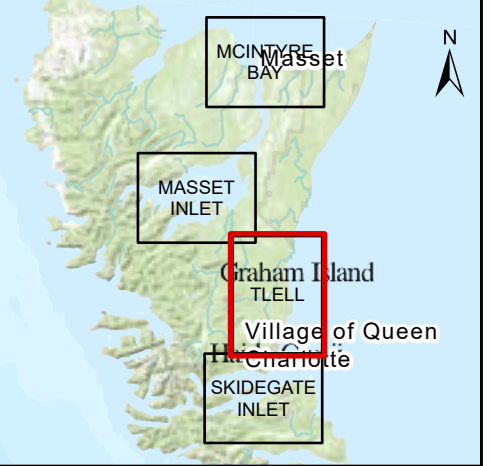
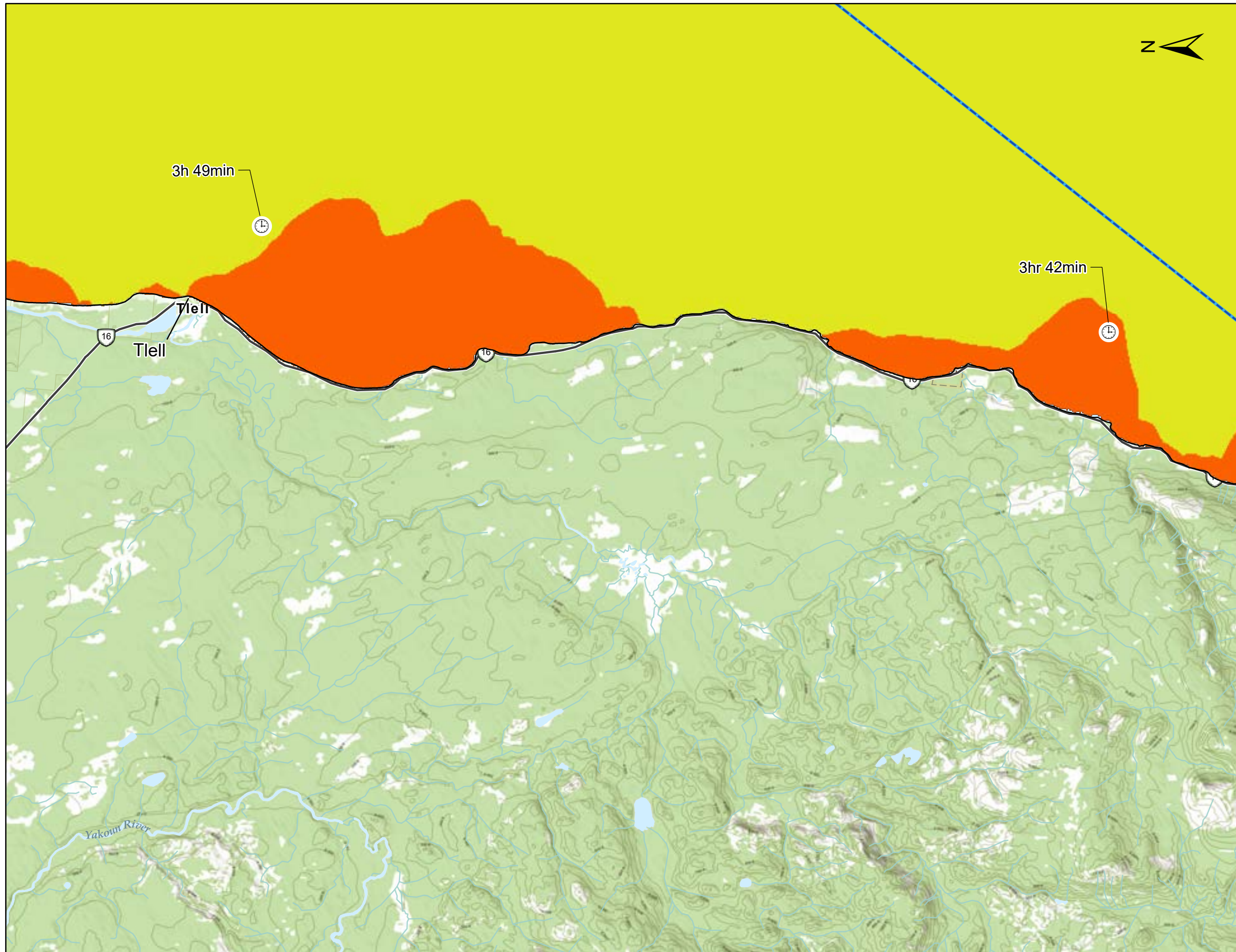
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Job Number	3006196		Date	06-JAN-2023	

HAIDA GWAIL COASTAL FLOOD AND EROSION HAZARD STUDY

MASSET INLET
MAXIMUM TSUNAMI AMPLITUDE
CASCADIA TSUNAMI

SHEET 2 OF 4

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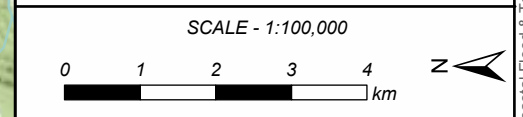


MAX TSUNAMI AMPLITUDE

- 0 - 0.5 m
- 0.5 - 1 m
- 1 - 2 m
- 2 - 4 m
- 4 - 6 m
- >6 m

- TSUNAMI ARRIVAL TIME
- APPROXIMATE COASTLINE
- FERRY ROUTE
- MUNICIPAL BOUNDARY

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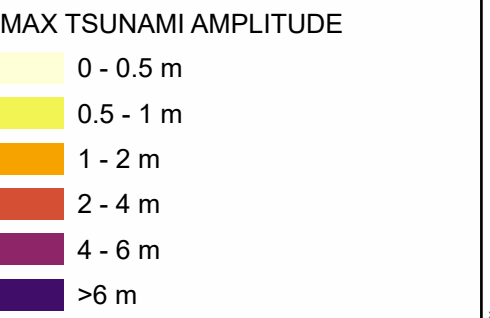
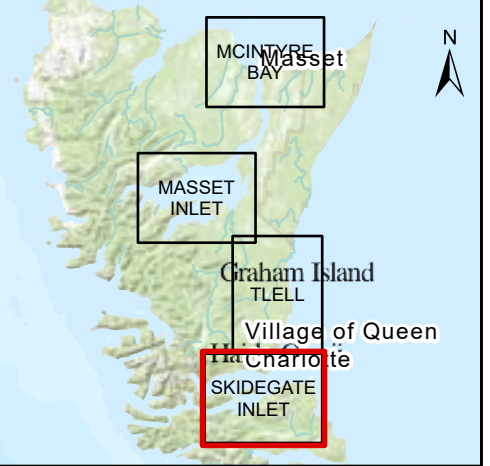
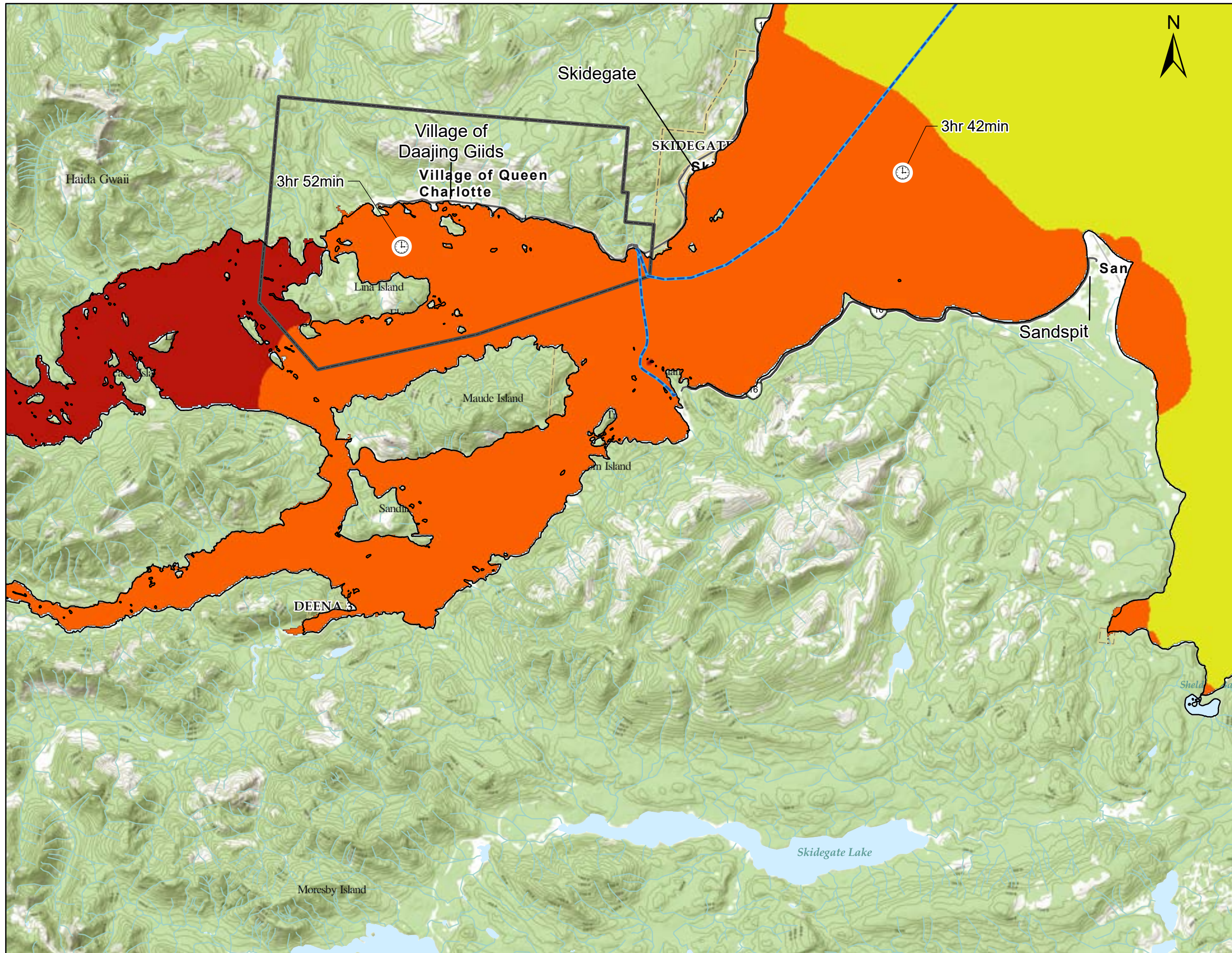
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Haida Gwaii Coastal Flood and Erosion Hazard Study

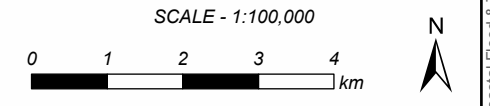
Tlell
Maximum Tsunami Amplitude
Cascadia Tsunami

SHEET 3 OF 4



- TSUNAMI ARRIVAL TIME
- APPROXIMATE COASTLINE
- FERRY ROUTE
- MUNICIPAL BOUNDARY

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HAIDA GWAII COASTAL FLOOD AND EROSION HAZARD STUDY

**SKIDEGATE INLET
MAXIMUM TSUNAMI AMPLITUDE
CASCADIA TSUNAMI**

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