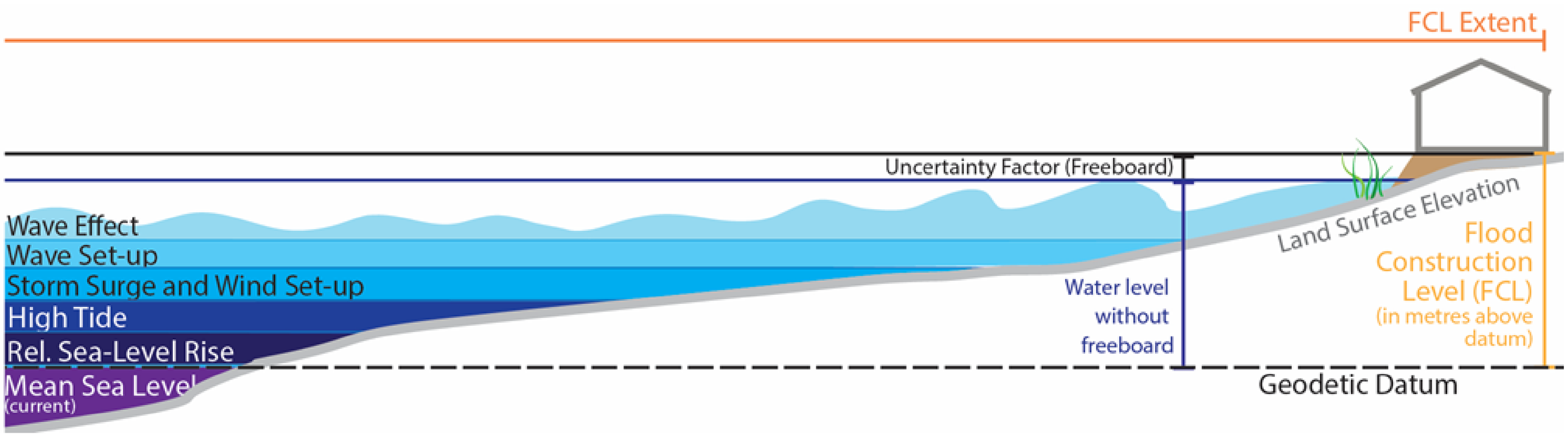
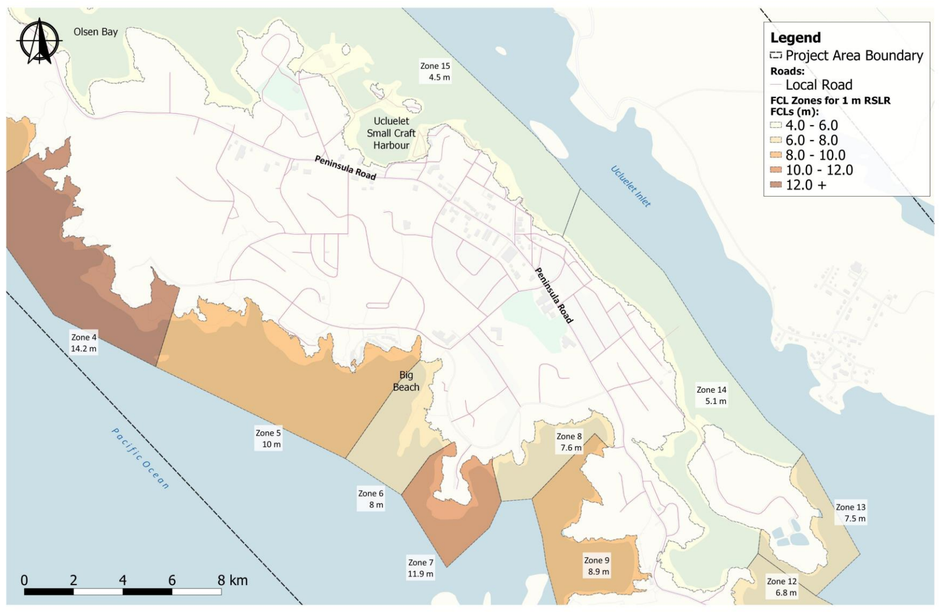
How Do the Flood Maps Affect Me?

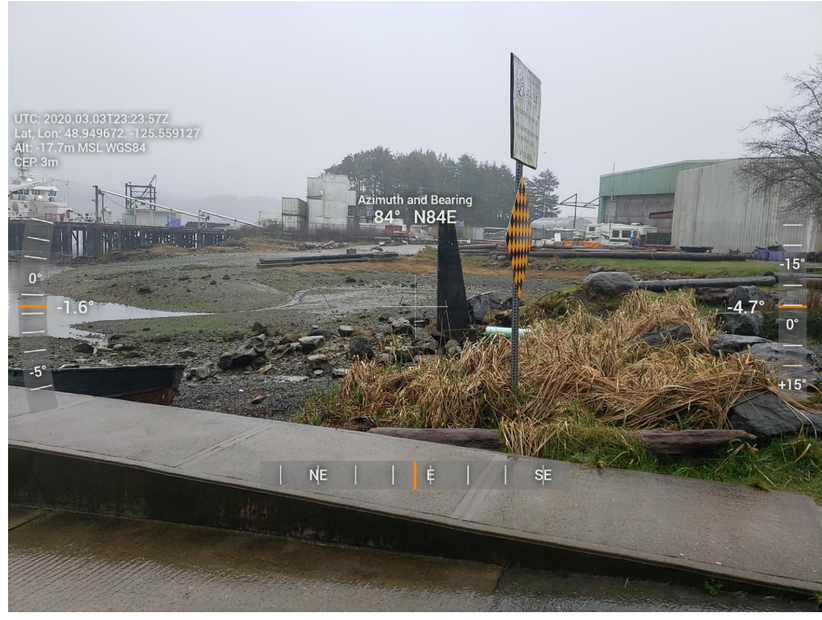
FCL

Flood maps are used in many ways to support mitigation of flood damages in the short and long term. One of the key ways these maps can be used is to define flood construction levels (FCLs). FCLs are used to determine the "safe" level that the ground floor of a habitable building should be constructed at to minimize damages from flooding.

The Province of British Columbia provides guidelines on how FCLs should be determined and how they can be used in local policy and regulations. The FCL is defined as the total water level (including tide, storm surge, wind and wave effects, as well as sea-level rise), plus an uncertainty factor called freeboard.







Tsunami flood depth and extent maps were also used as the basis to produce planning support maps for the DOU. However, in contrast to FCLs used for coastal storm flooding, guidelines development is in its infancy for tsunami flood hazard. Safety factors (equivalent to freeboard used to determine FCLs) are a critical component. To establish the tsunami flood planning levels, results for two rupture models were used, both with a 50% safety factor and without. With more information, these maps can help planners define the community's "risk tolerance" in siting infrastructure and implementing emergency response plans.

Project Limitations

As with any study of this type, many uncertainties exist, and modelling and mapping can only provide a simplified representation of a complex reality. Please refer to the final report (Ebbwater Consulting Inc. and Cascadia Coast Research, 2020) for a full discussion of limitations.

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