4.10. Waitangi

Maps of inundation depth and maximum current speed for Waitangi are presented in Figures 52 – 57. Predicted inundation from the South American event is limited to narrow strips of land on either side of the entrance to the estuary. Te Karuwha Parade runs along the coast here. Some inundation is apparent within the estuary, but little suggestion of inundation affecting Waitangi. Maximum current speeds are strong, exceeding 2.5 m s^{-1}, in the entrance to the estuary. The depth of inundation increases with sea level rise.

A similar pattern of inundation results from the TKSZ M_w8.5 event. More extensive inundation results from the M_w9.0 event, with increased flooding around Haruru and settlements on the northern shore of the estuary at risk. Sea level rise increases the depth and extent of inundation. Maximum current velocities in the estuary mouth are high, exceeding 2.5 m s^{-1}, with increased erosion risk.

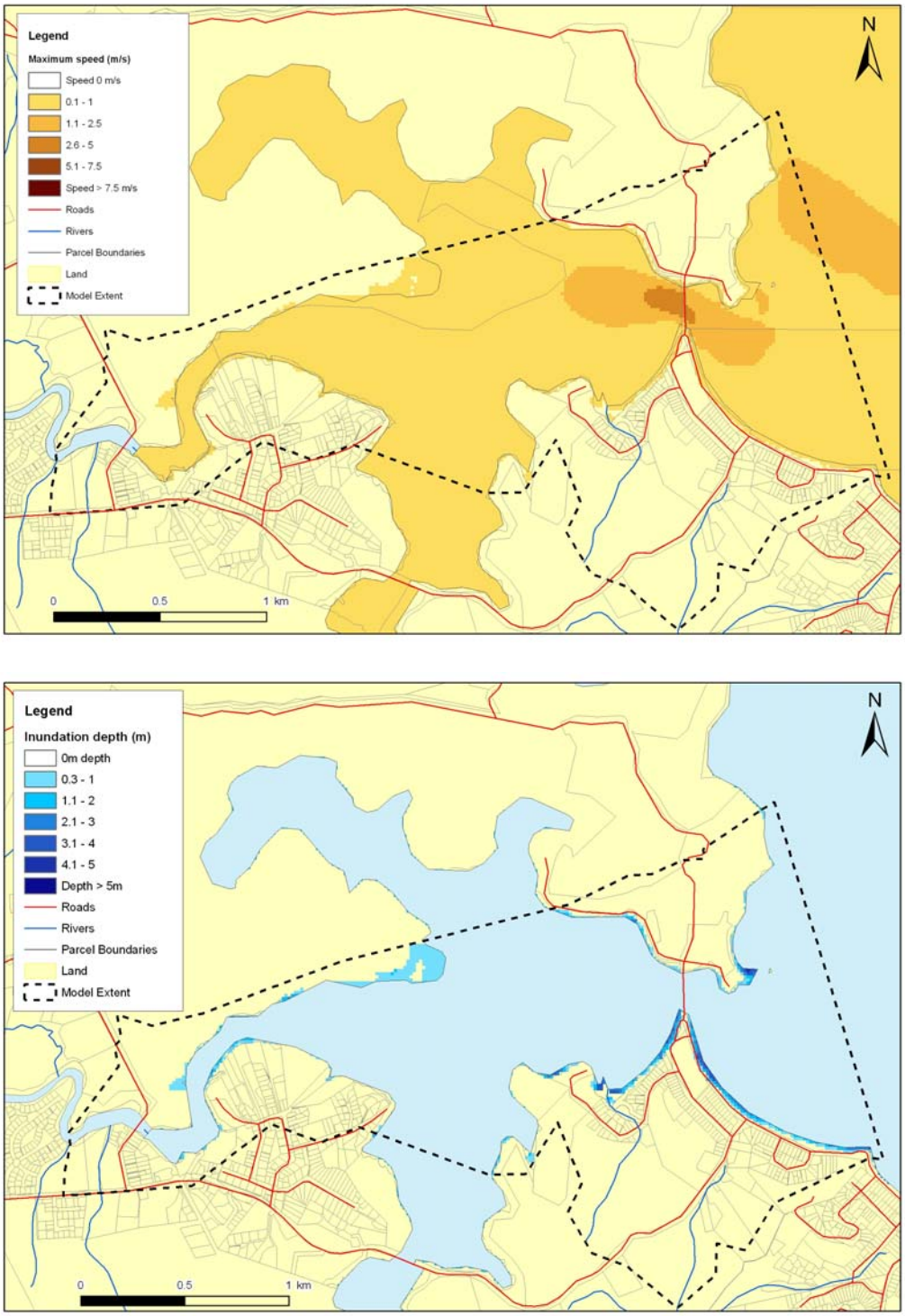

Figure 52: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the South American tsunami scenario at MHWS (to extent of LIDAR).

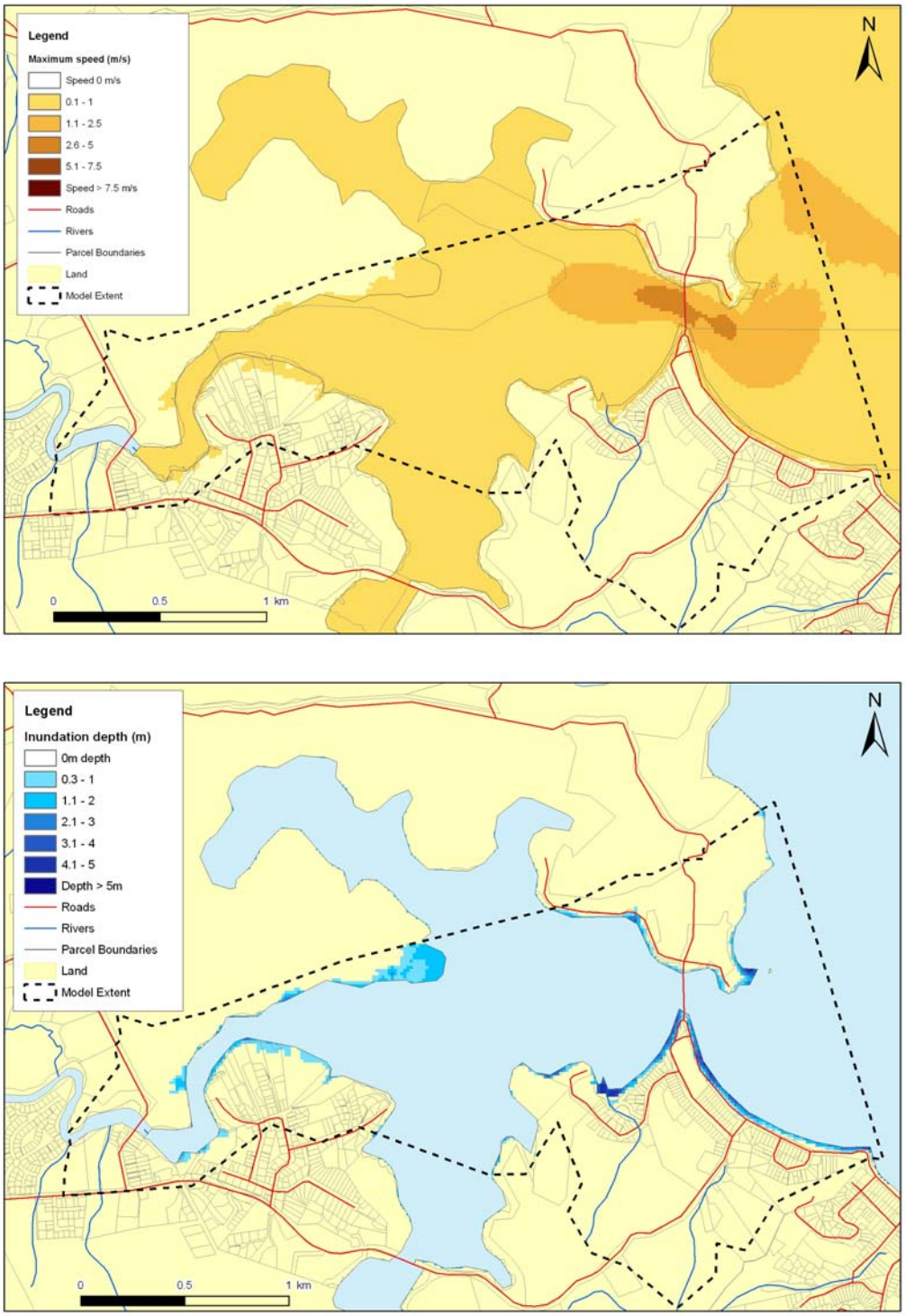

Figure 53: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the South American tsunami scenario at MHWS + 50cm (to extent of LIDAR).

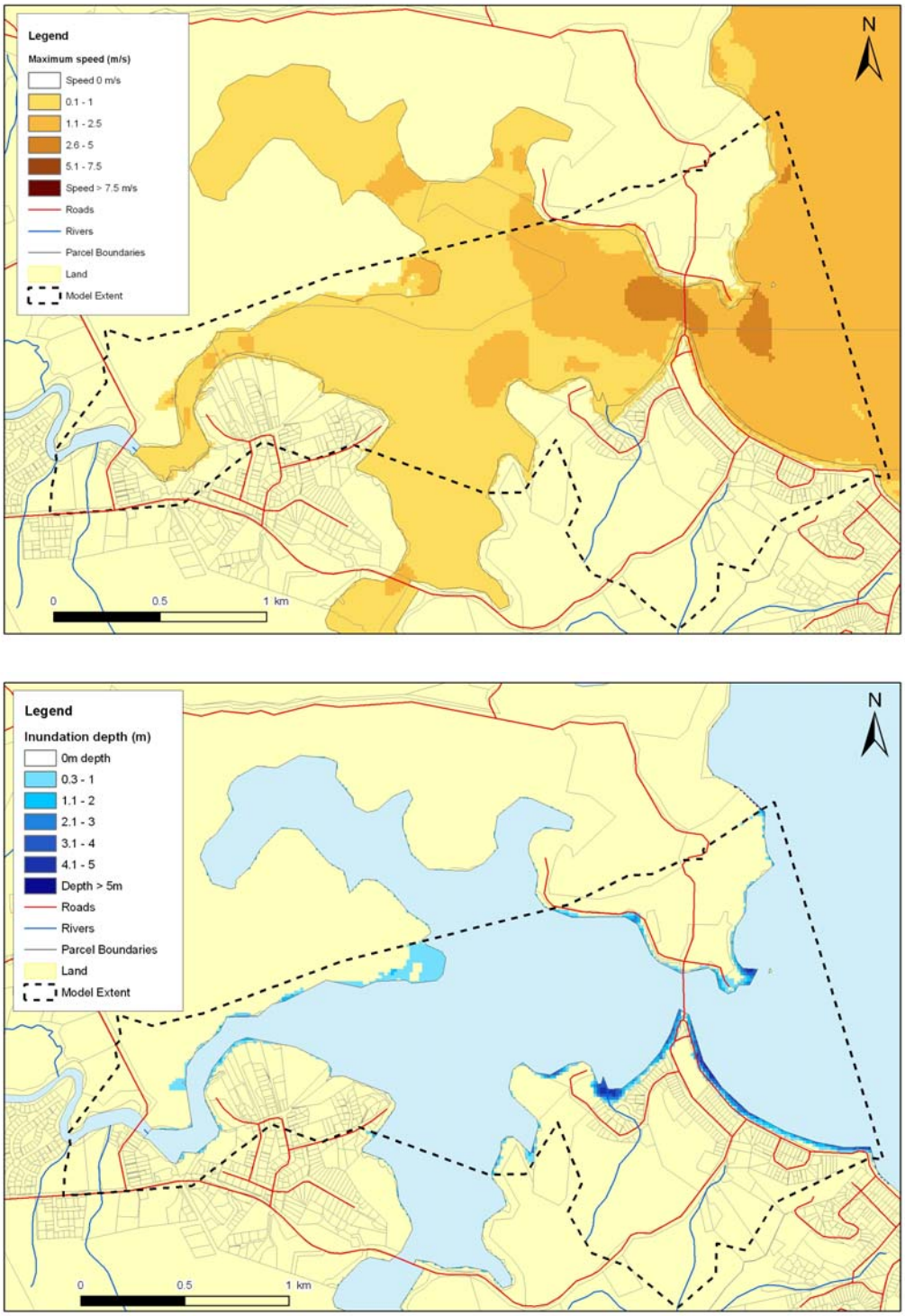

Figure 54: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the M_w8.5 Tonga-Kermadec subduction zone scenario at MHWS (to extent of LIDAR).

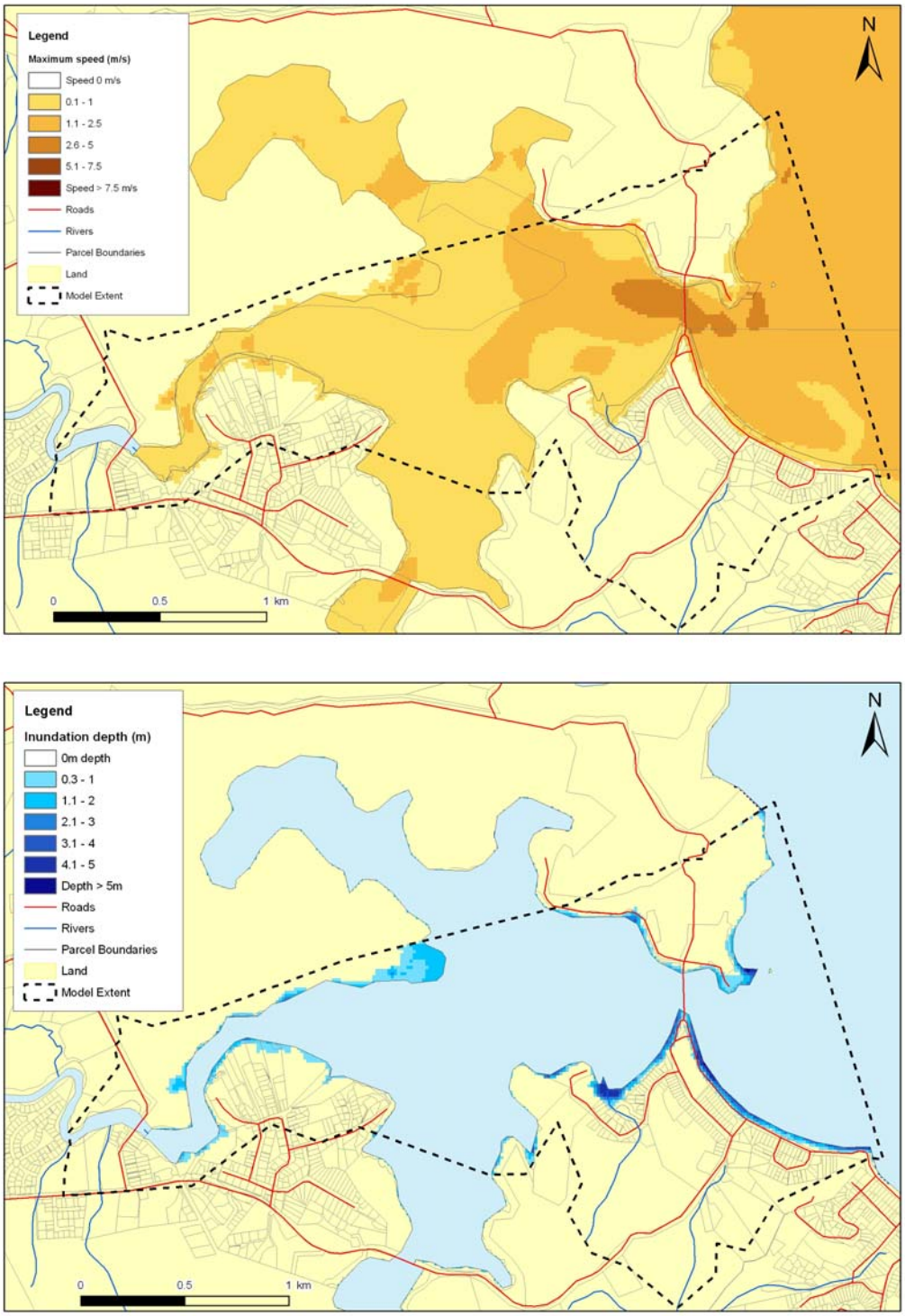

Figure 55: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the M_w8.5 Tonga-Kermadec subduction zone scenario at MHWS + 50cm (to extent of LIDAR).

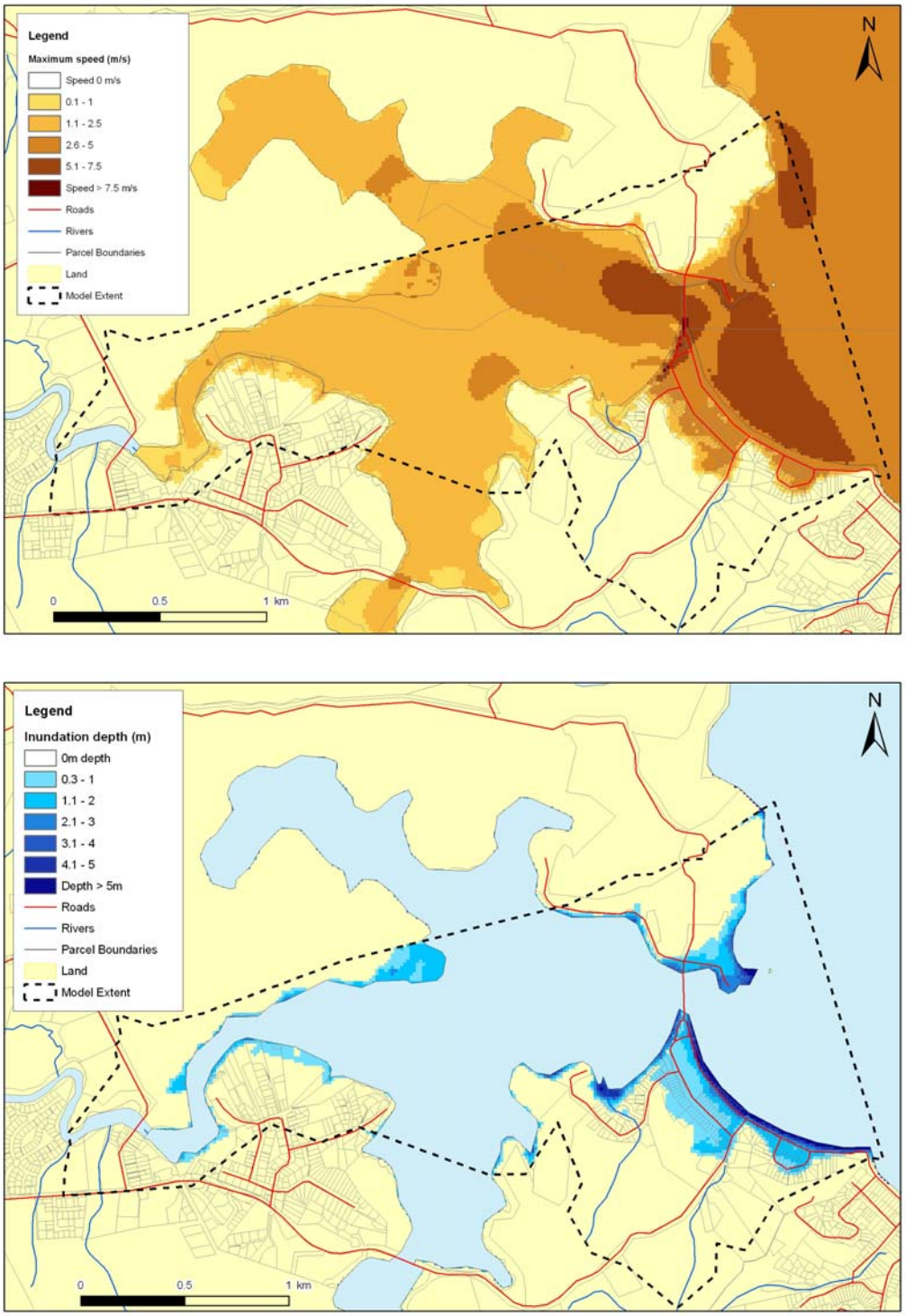

Figure 56: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the M_w9.0 Tonga-Kermadec subduction zone scenario at MHWS (to extent of LIDAR).

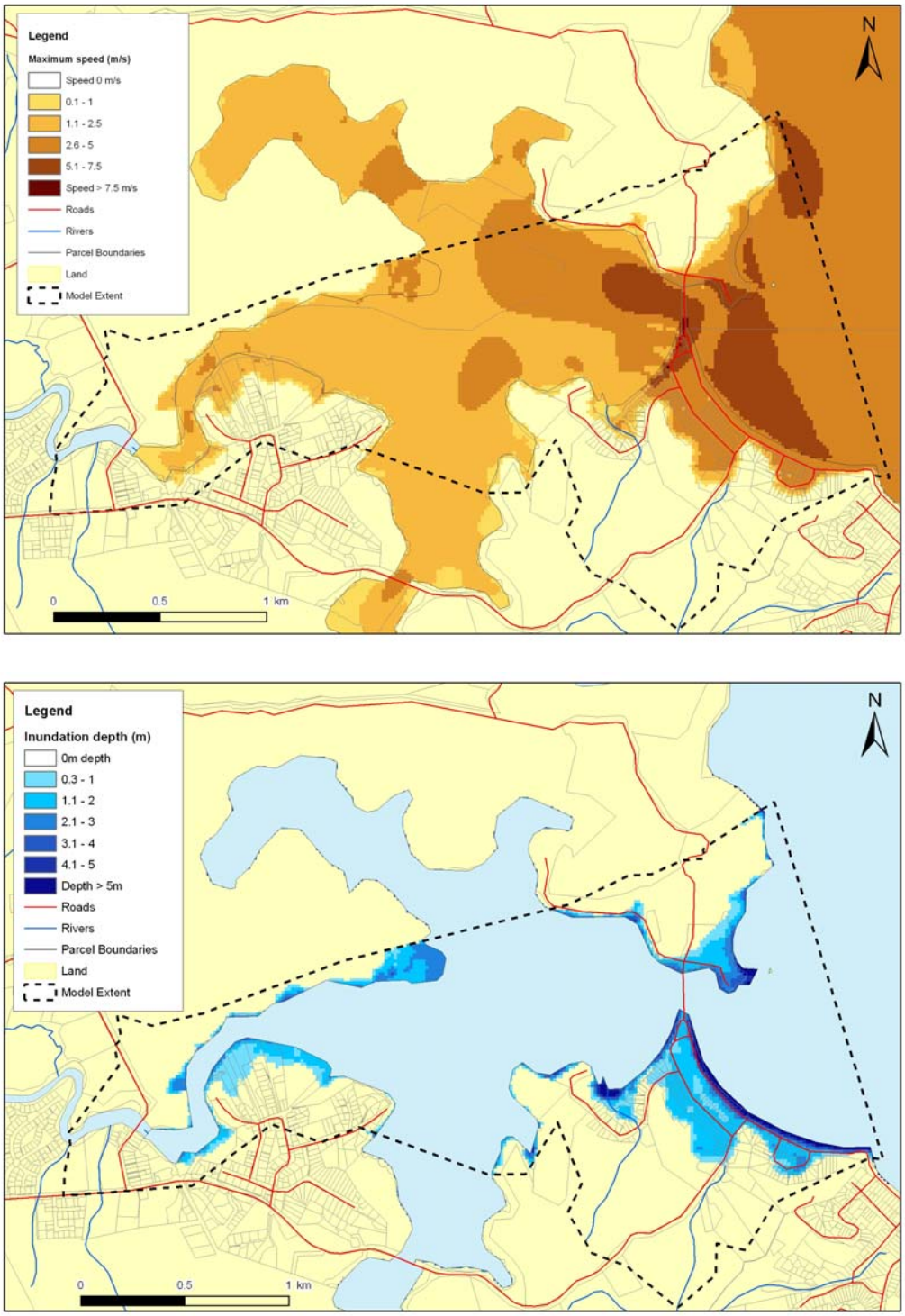

Figure 57: Waitangi: Maximum inundation speed (upper) and depth (lower) plots for the M_w9.0 Tonga-Kermadec subduction zone scenario at MHWS + 50cm (to extent of LIDAR).