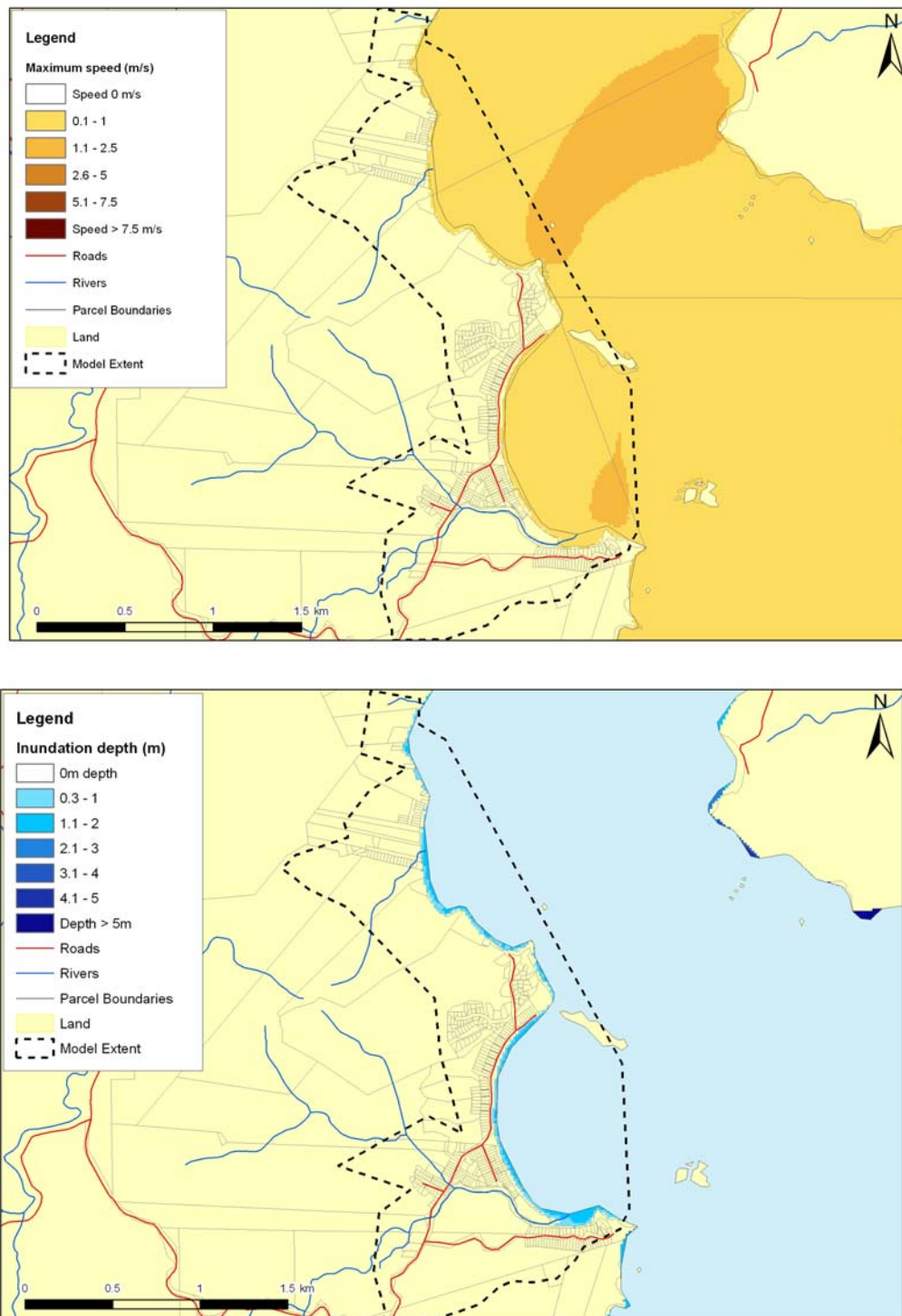


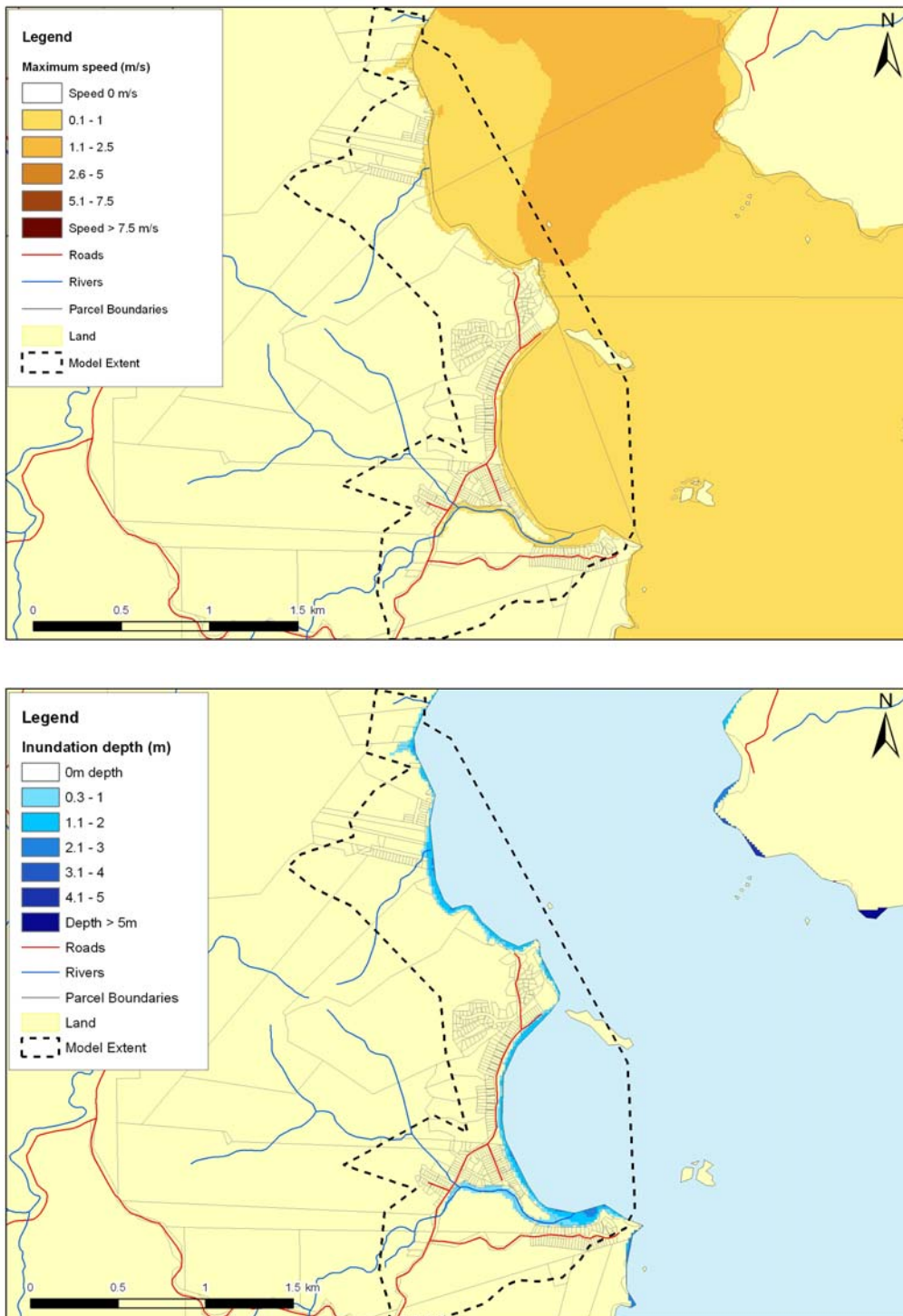
#### 4.16. Oakura and Ohawini Bays

Maps of inundation depth and maximum current speed for Oakura and Ohawini Bays are presented in Figures 88 – 93. Predicted inundation from the South American event is confined to a narrow strip along the coastline and does not appear to pose a significant threat to settlements in Oakura, Whangaruru South or Ohawini Bay. When sea level rise is included, however, inundation does begin to encroach on properties closest to the shore and those closest to Oakura Stream. Maximum current speeds are typically less than  $1 \text{ m s}^{-1}$ .

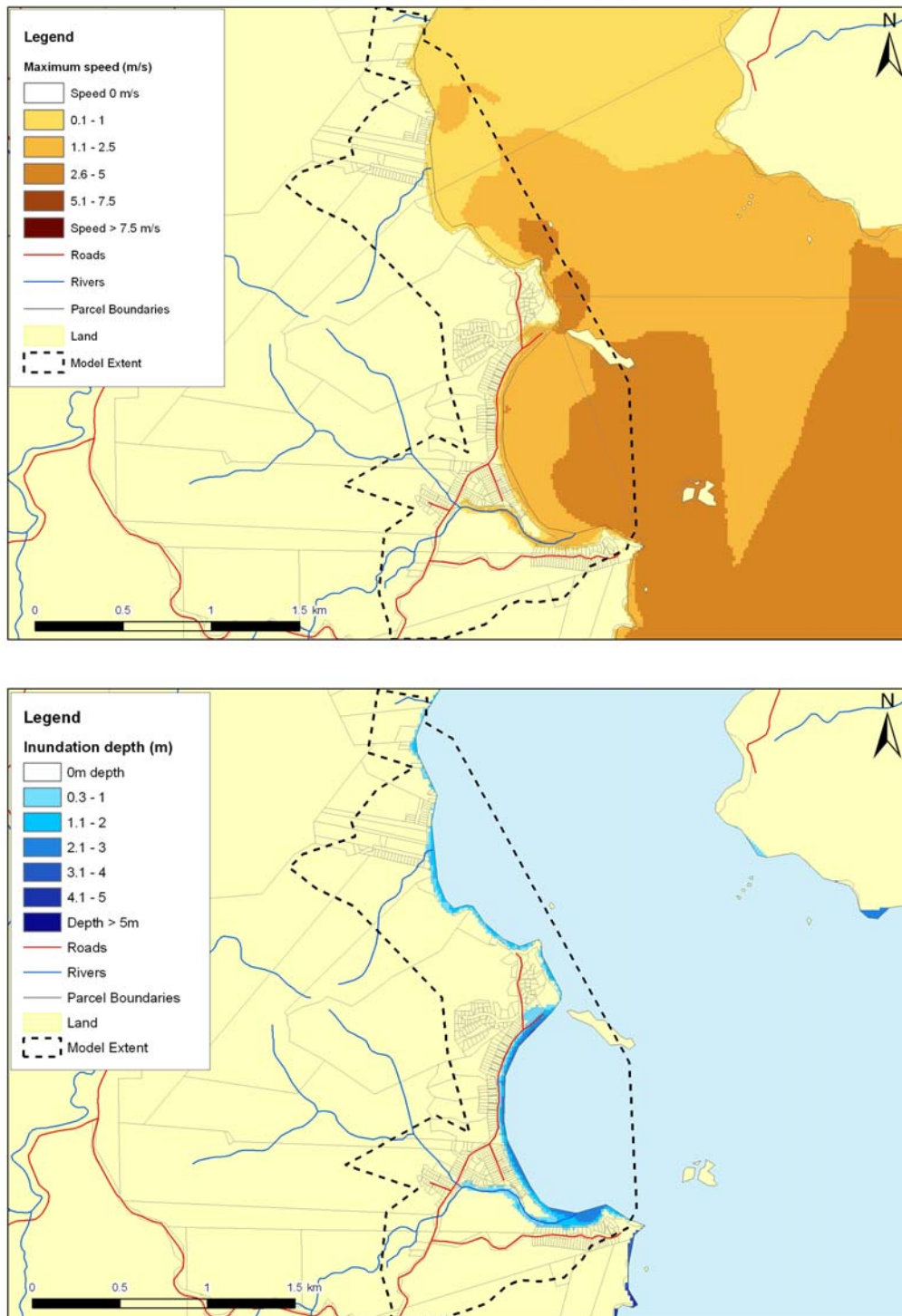
Predicted inundation for the TKSZ  $M_w 8.5$  event is stronger than for the South American event, but still largely confined to a narrow coastal strip and the banks of the Oakura stream, although properties lying between Oakura Road and Ohawini Road are impacted. When sea level rise is included, the inundation becomes more extensive, potentially affecting numerous properties in Oakura and Whangaruru South and some properties in Ohawini bay. Maximum current speeds are stronger, reaching  $2.5 \text{ m s}^{-1}$ . Predicted impacts from the  $M_w 9.0$  event are widespread and potentially severe throughout the area. Most properties in Oakura and Whangaruru South are affected, as is the settlement at Ohawini Bay. Inundation depths exceed 5 m over wide areas, and are exacerbated when sea level rise is included. Maximum current speeds exceed  $7.5 \text{ m s}^{-1}$  in Oakura, posing a serious damage and erosion hazard.



**Figure 88:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the South American tsunami scenario at MHWS (to extent of LIDAR).

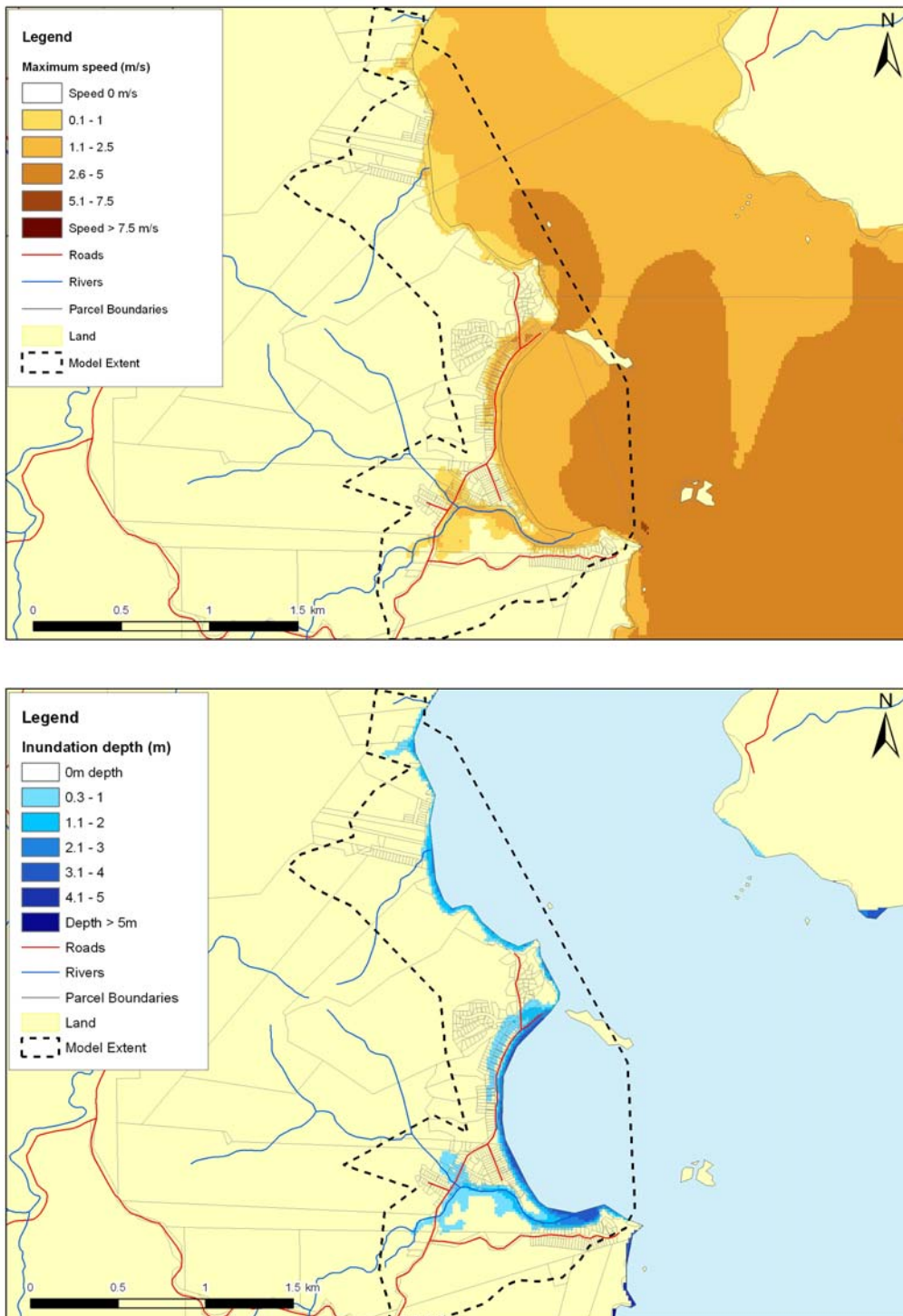


**Figure 89:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the South American tsunami scenario at MHWS + 50cm (to extent of LIDAR).

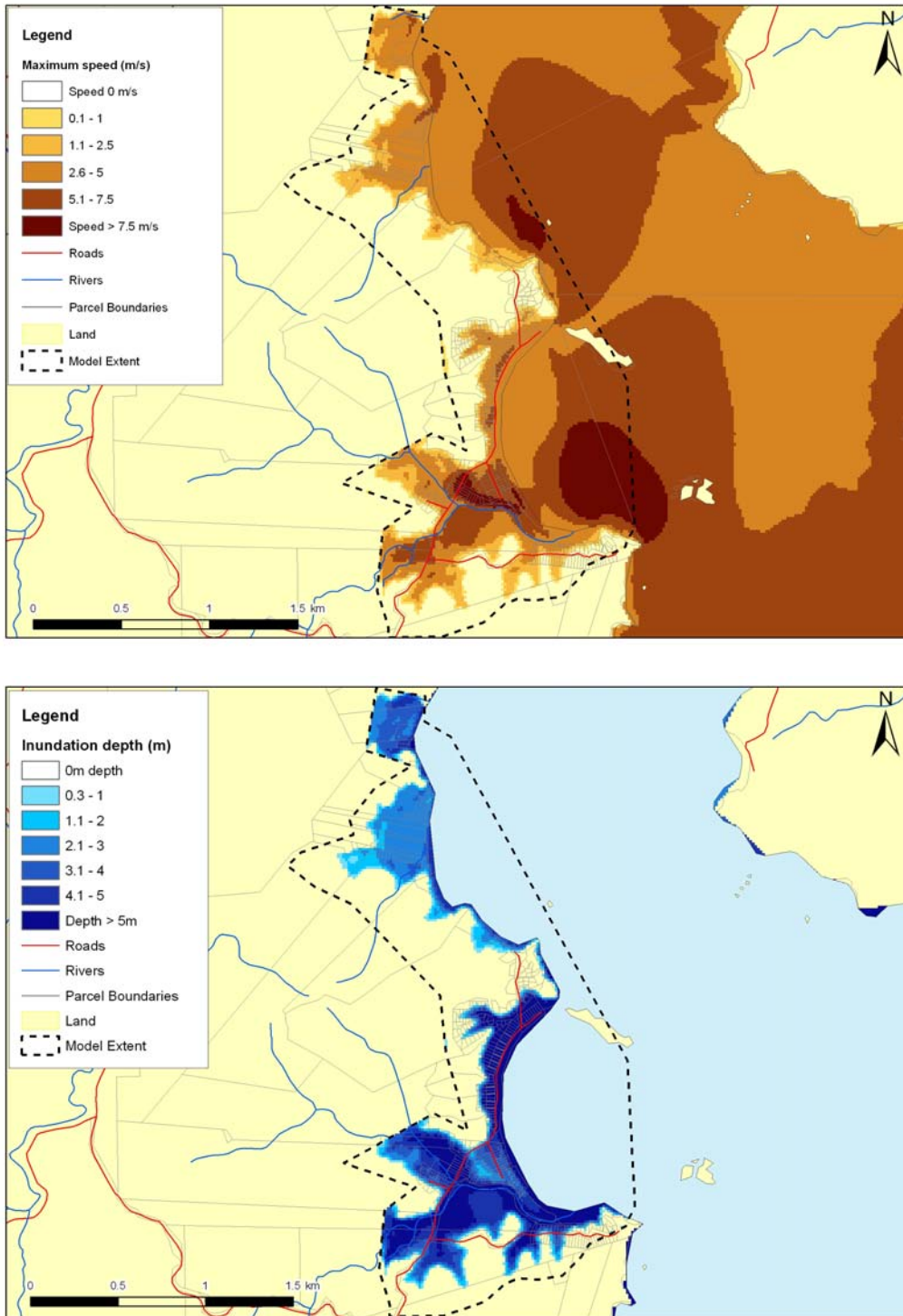


**Figure 90:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the Mw8.5 Tonga-Kermadec subduction zone scenario at MHWS (to extent of LIDAR).

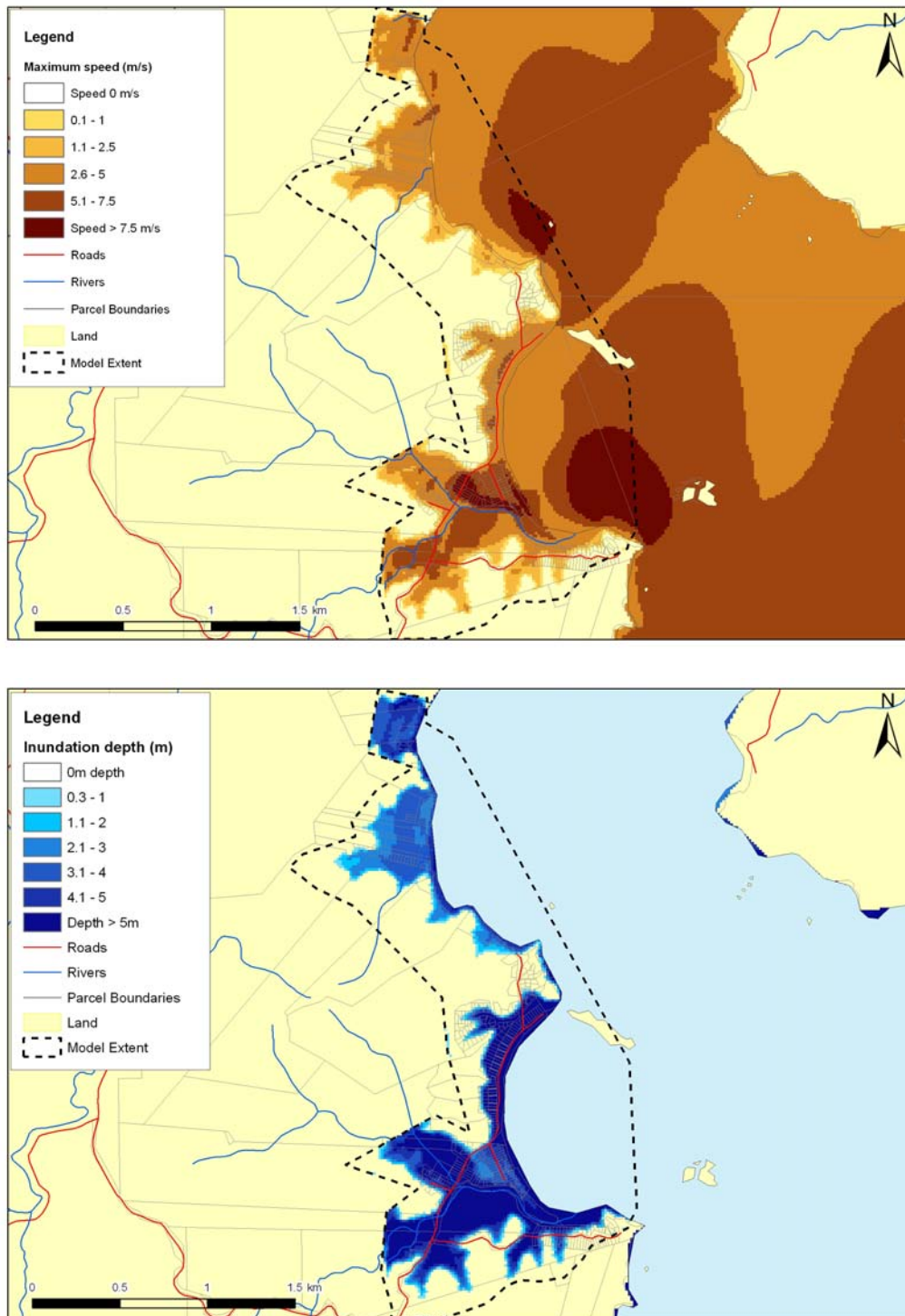




**Figure 91:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the  $M_w 8.5$  Tonga-Kermadec subduction zone scenario at MHWS + 50cm (to extent of LIDAR).



**Figure 92:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the  $M_w$ 9.0 Tonga-Kermadec subduction zone scenario at MHWS (to extent of LIDAR).



**Figure 93:** Oakura and Ohawini Bays: Maximum inundation speed (upper) and depth (lower) plots for the Mw9.0 Tonga-Kermadec subduction zone scenario at MHWS + 50cm (to extent of LIDAR).