INFRASTRUCTURE RESEARCH DAY

SEISMIC AND CO-SEISMIC HAZARDS

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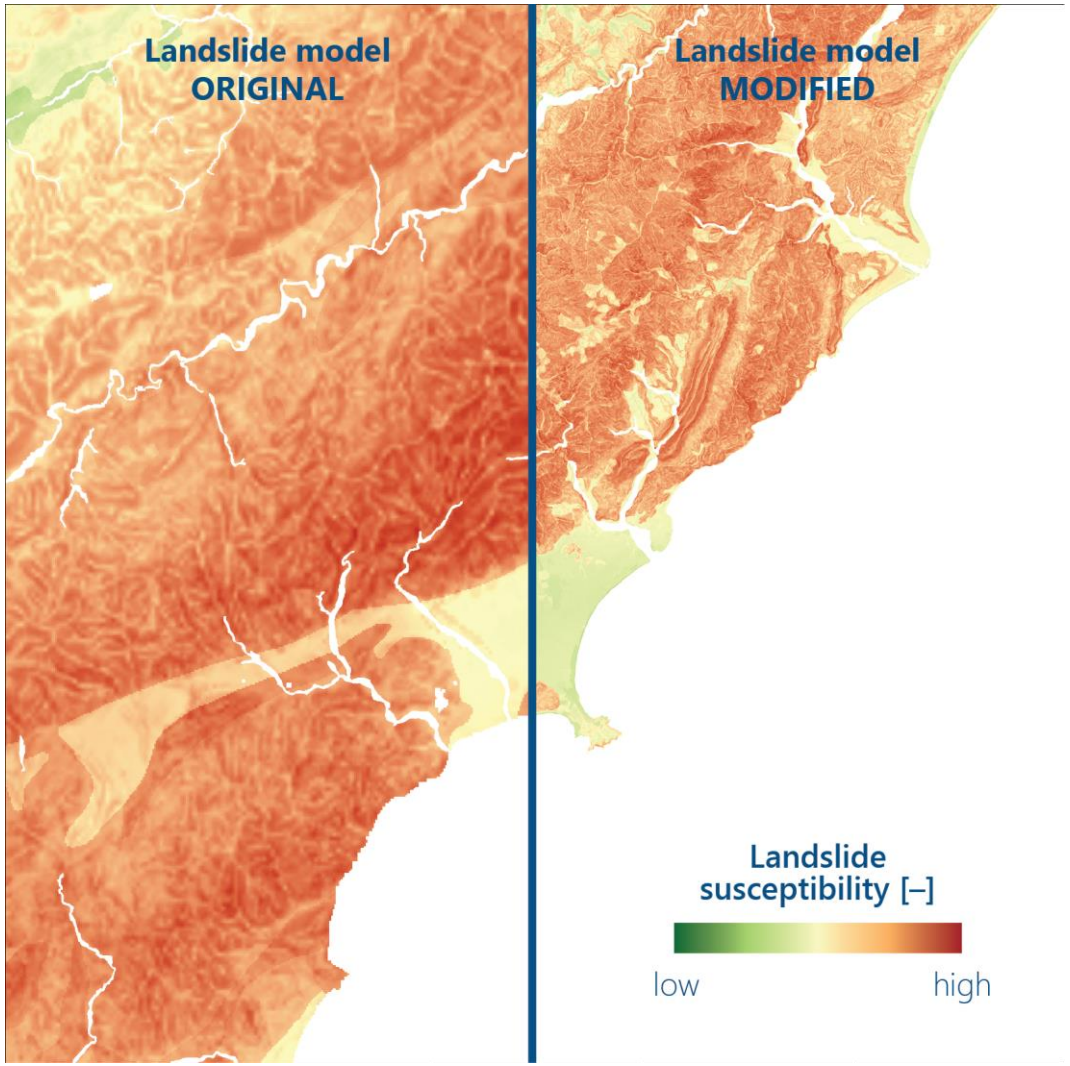
NEW ZEALAND

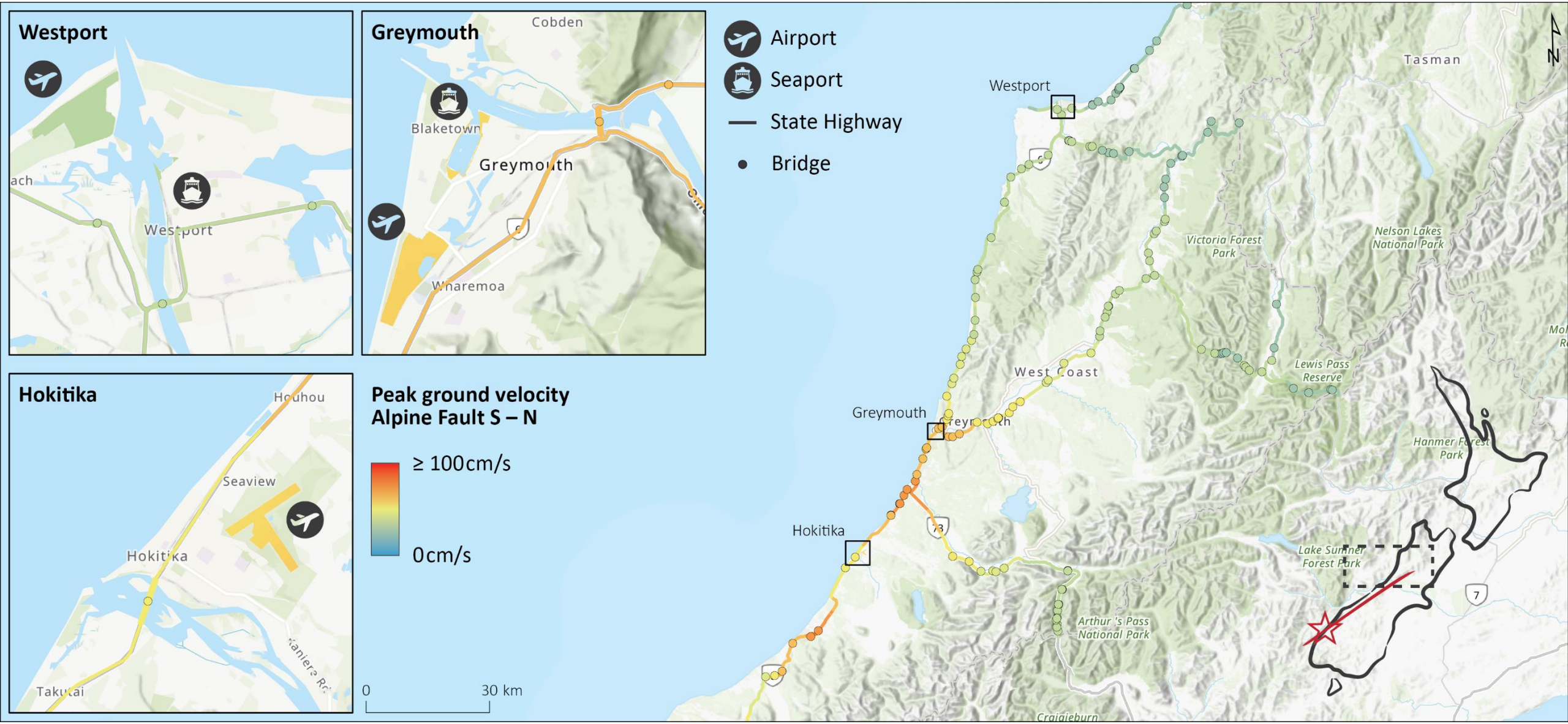
PREVIOUS RESEARCH

Modifying liquefaction and landslide models by using **New Zealand specific variables** which provide a higher resolution (e.g. slope) and/or more uptdated informatiom (e.g. Vs30) compared to the global variables.

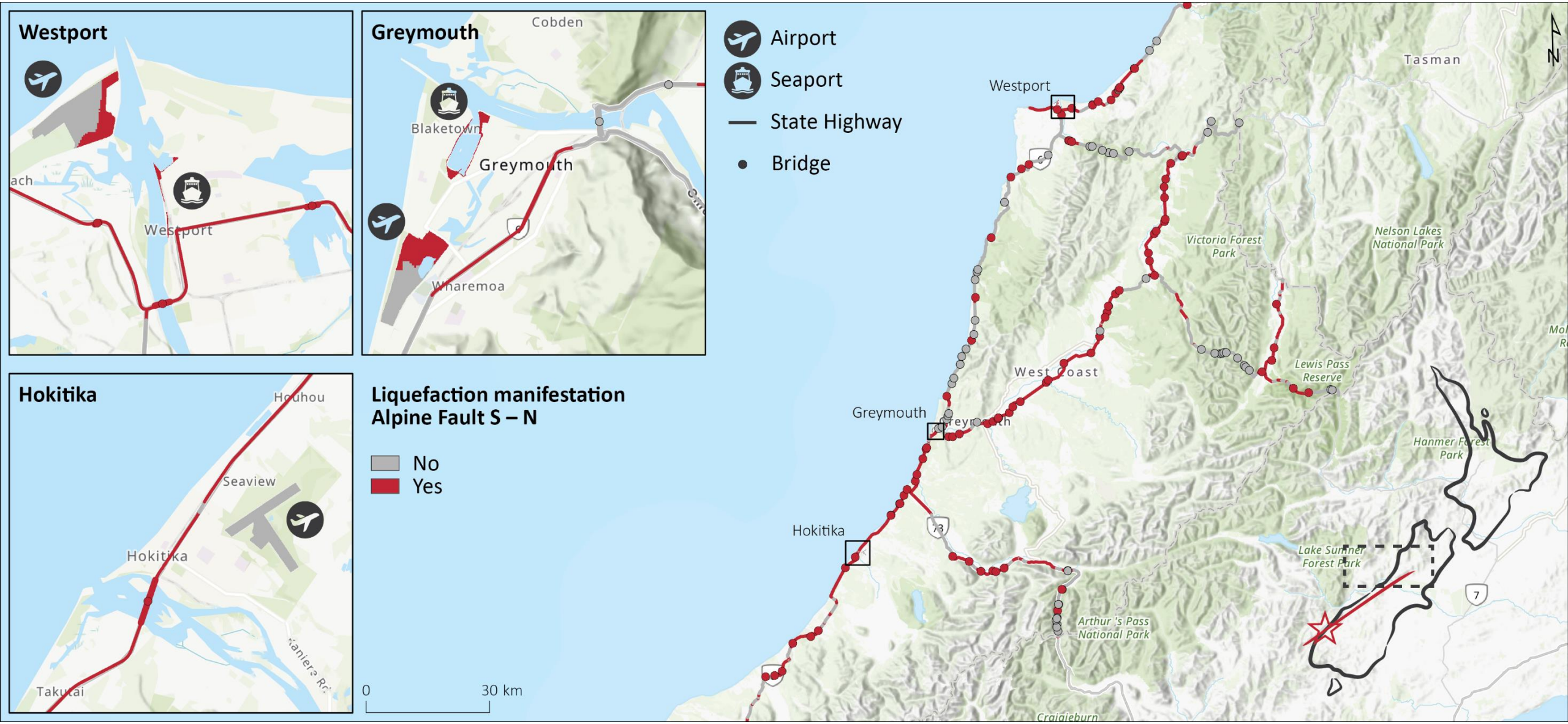
The modified models allow for rapid high resolution output.



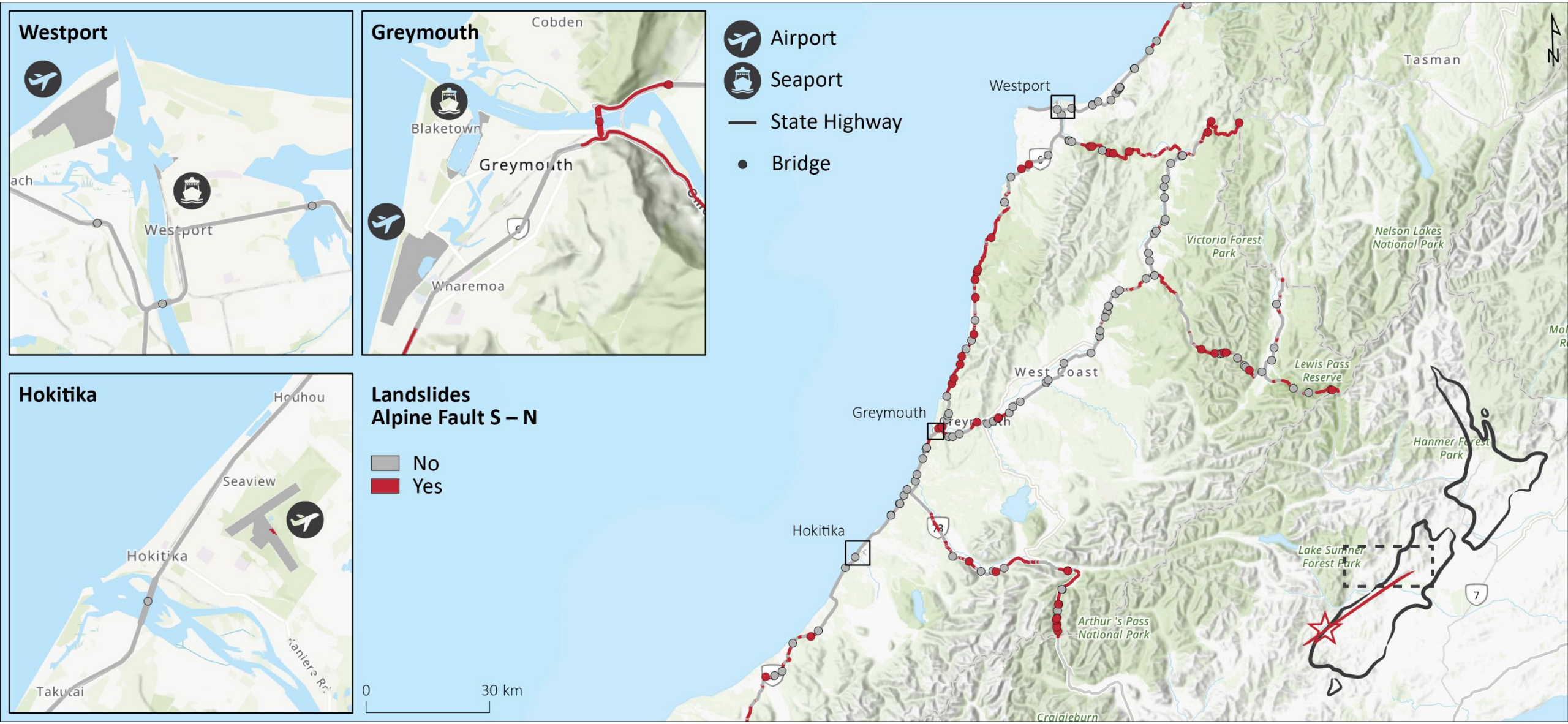
EXAMPLE ALPINE FAULT | PGV



EXAMPLE ALPINE FAULT | LIQUEFACTION

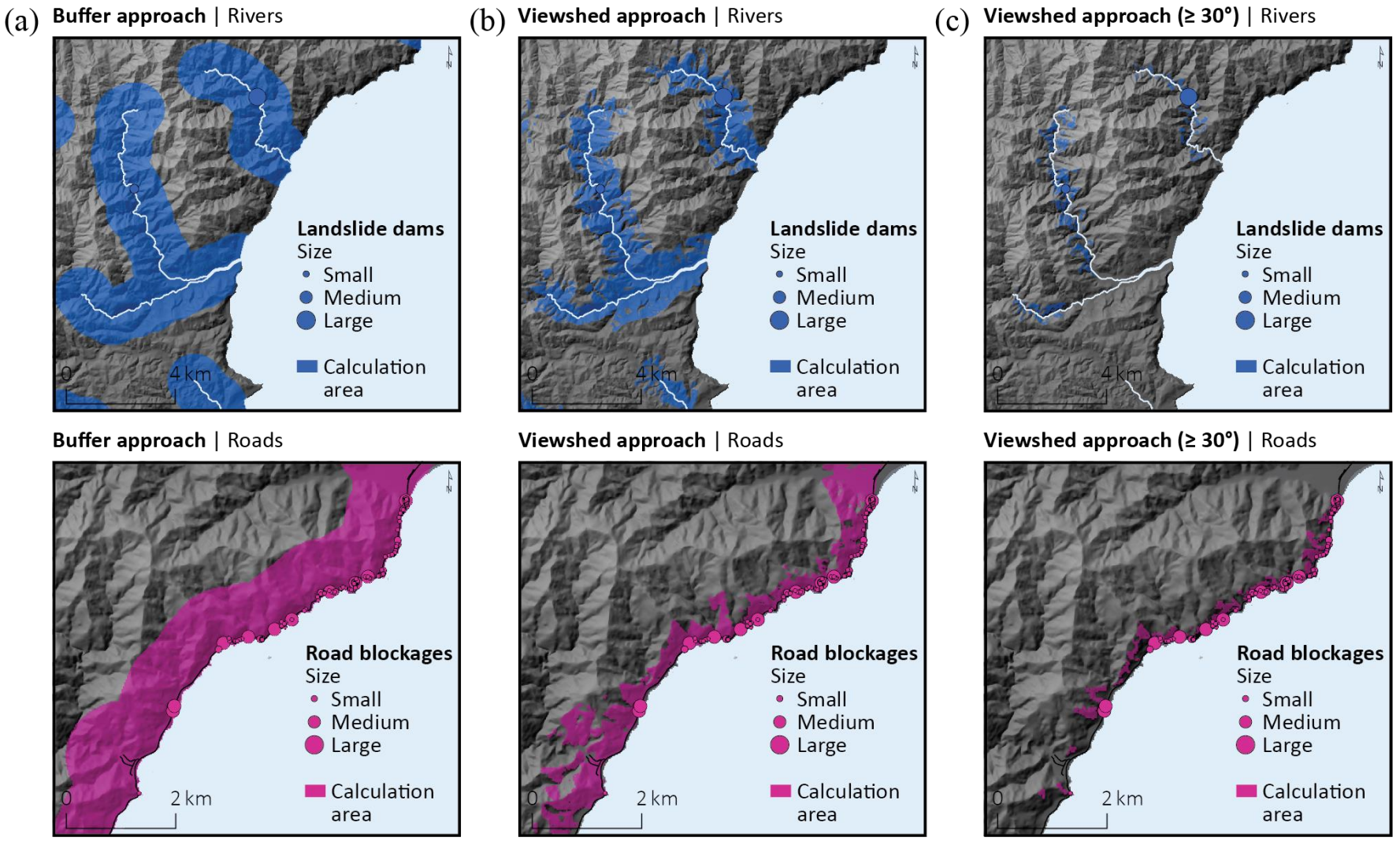


EXAMPLE ALPINE FAULT | LANDSLIDES



CURRENT RESEARCH

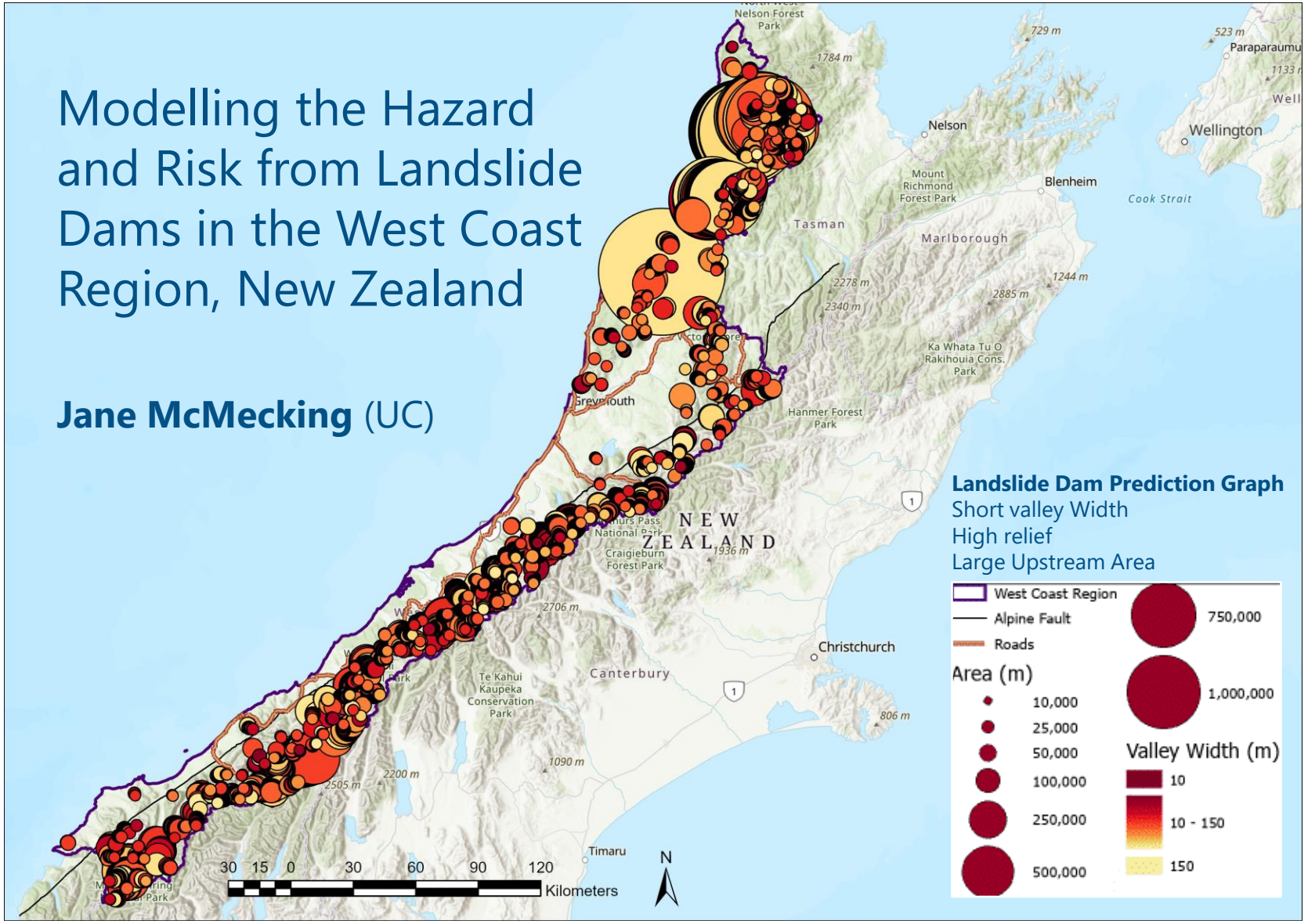
Landslide hazards across infrastructure networks and assets (e.g. **road blockages** or **landslide dams**)

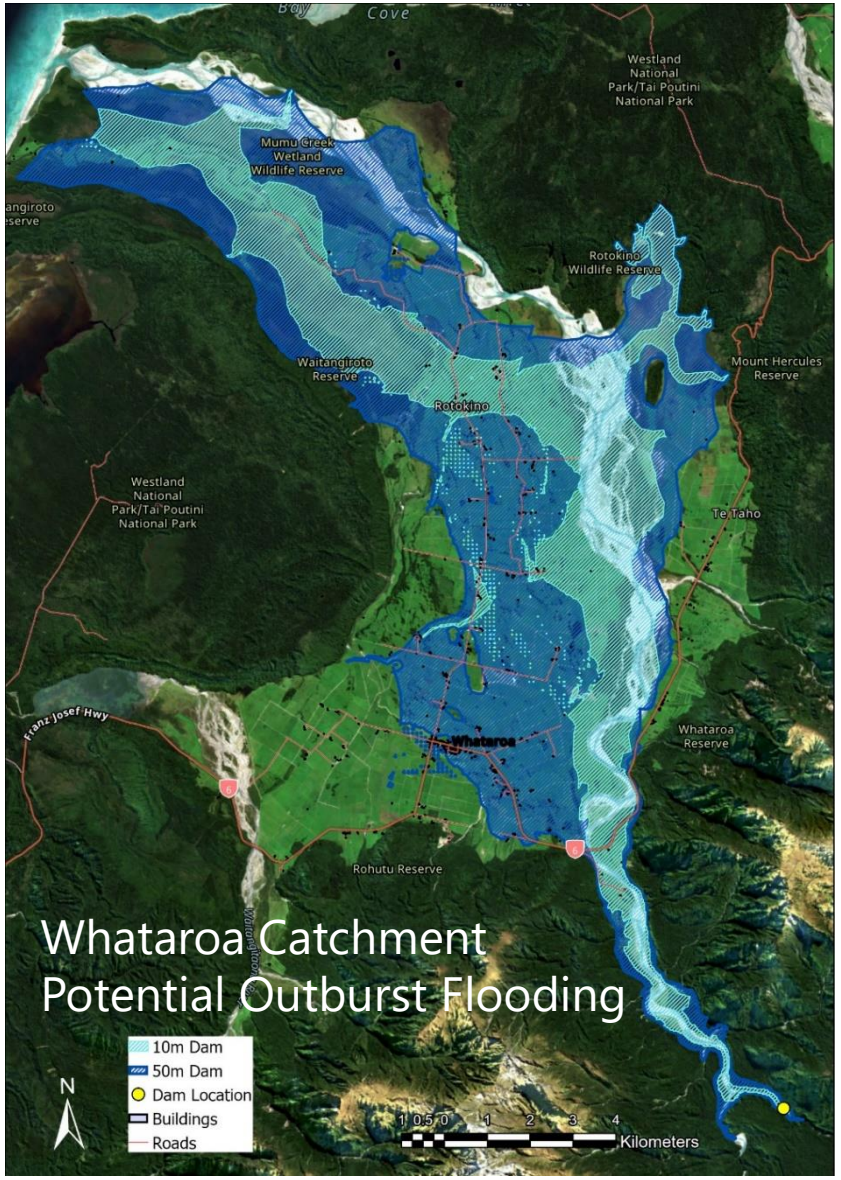


FUTURE RESEARCH

Modelling the Hazard and Risk from Landslide Dams in the West Coast Region, New Zealand

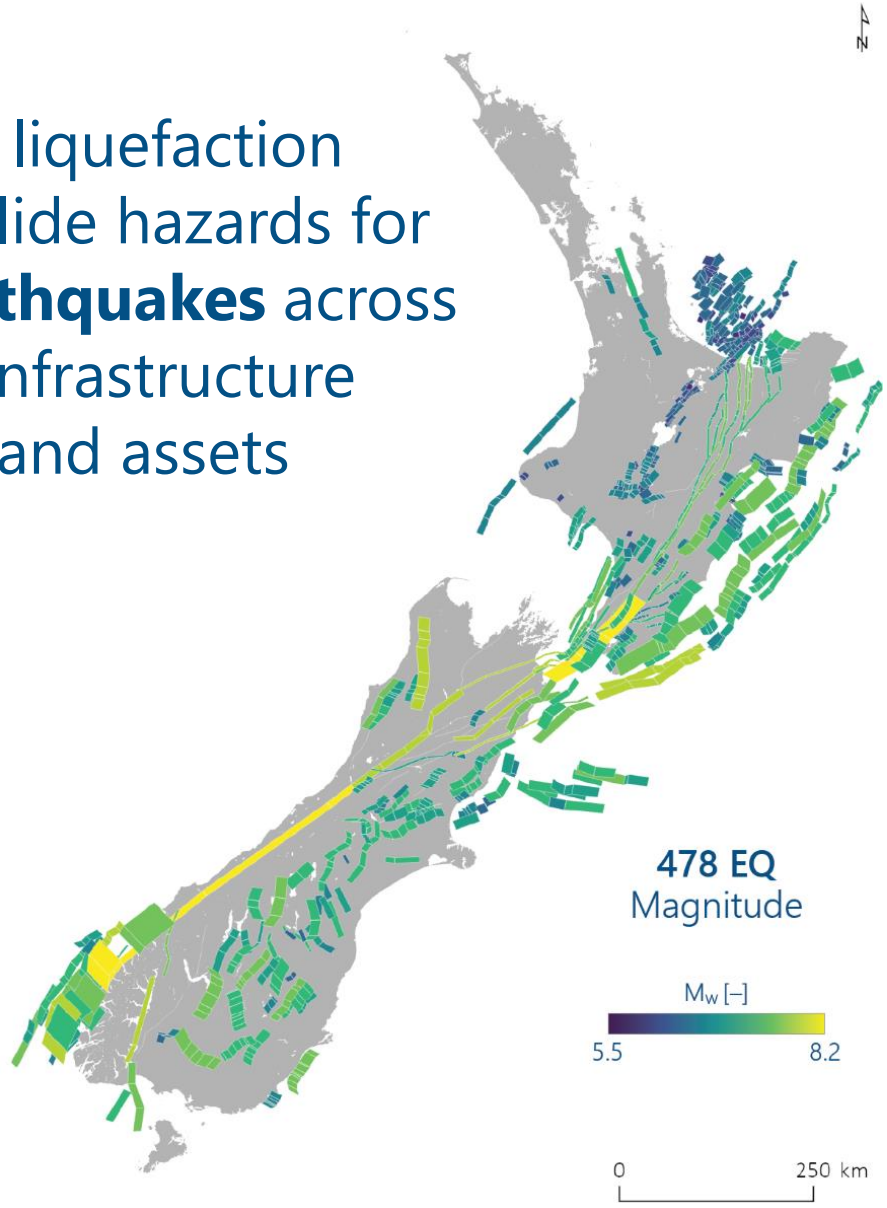
Jane McMecking (UC)

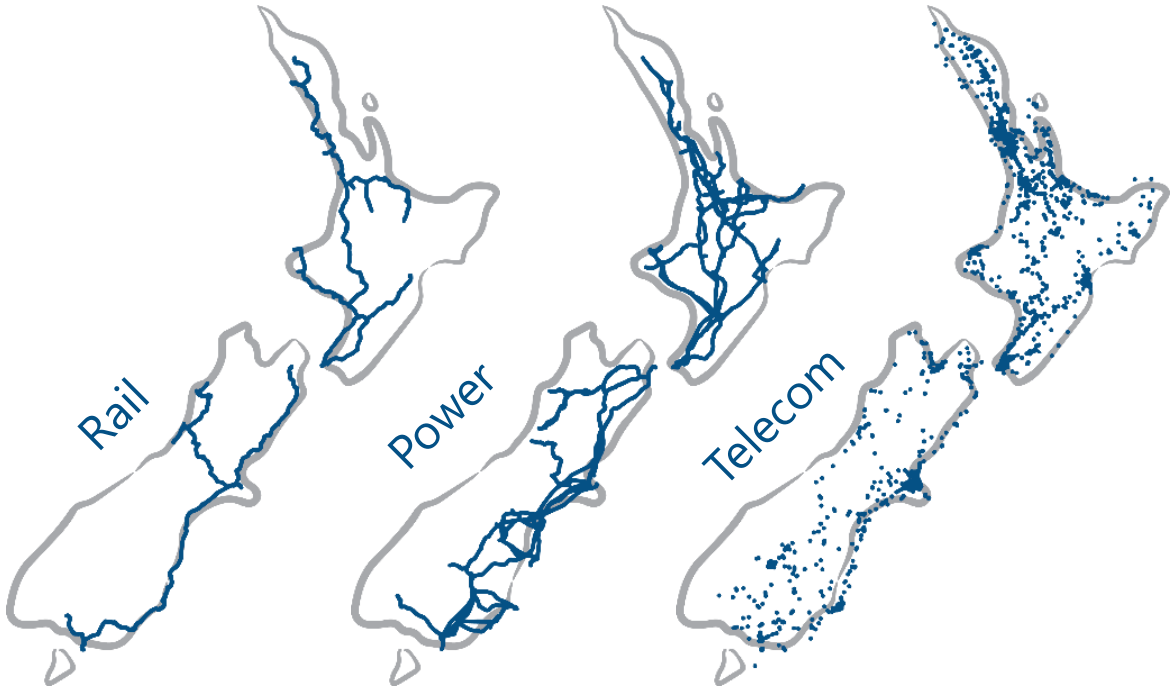




FUTURE RESEARCH

Assessing liquefaction and landslide hazards for **~500 earthquakes** across different infrastructure networks and assets





>>> Network criticality
>>> Network interdependency
>>> Network redundancy